

Supplement to the

Mono County
General Plan Land Use Amendments
Final Environmental Impact Report
(FEIR)

SCH #98122016 & #2004082091

Prepared for Benton Crossing Landfill
General Plan Amendment #04-02
Use Permit Application #37-04-08

DRAFT December, 2004

Mono County Planning Department

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I. INTRODUCTION

PROJECT DESCRIPTION

Benton Crossing Landfill currently operates on approximately 95.05 acres of land leased from the Los Angeles Department of Water and Power (LADWP). Mono County, the landfill operator, proposes to expand the property boundaries by approximately 50.01 acres in total, consisting of 15.00 acres adjacent to the eastern boundary of the landfill and 35.01 acres adjacent to the current northern boundary. The proposed expansion areas are located on land owned by LADWP that is currently designated Open Space (OS). The landfill site is designated Public and Quasi-Public Facilities (PF). General Plan Amendment 04-02 would redesignate the proposed expansion areas from Open Space (OS) to Public and Quasi-Public Facilities (PF).

The Public and Quasi-Public Facilities (PF) land use designation permits solid waste facilities, landfills, and household hazardous waste facilities subject to Use Permit. Use Permit Application 37-04-08 addresses the following proposed activities for the landfill:

1. Property expansion to the east will incorporate existing monitoring wells and allow for the installation and maintenance of additional environmental monitoring devices and a storm water detention basin.
2. Property expansion to the north will serve a similar purpose but will also provide sufficient soil borrow resources to meet daily, intermediate, and final cover needs for the remainder of the facility's life.
3. The proposed design for the final landfill configuration consists of vertical fill over the existing waste footprint and does not propose lateral expansion beyond the limits of the existing waste footprint. The approved 1995 closure plan has an average perimeter slope height of 16 feet and a peak fill height of 28 feet; the proposed design has an average perimeter slope height of 22 feet and a peak height of 41 feet above surrounding grades. The approved capacity for Benton Crossing Landfill is currently 1,105,217 cubic yards; the proposed design results in an estimated site capacity of 1,814,400 cubic yards.
4. Construction activities proposed for the landfill expansion include the installation of additional landfill gas vents, landfill gas monitoring wells, and groundwater monitoring wells, all of which are proposed to supplement the existing environmental monitoring network. The landfill expansion may also include the potential future installation of permanent litter fencing along the eastern boundary of the fill area to prevent the off-site migration of windblown litter, and the potential future installation of a household hazardous waste building being considered to supplement existing storage buildings and to provide a covered containment area for consolidation of household hazardous wastes and storage of bulk containers.
5. Operational activities at the landfill include: 1) a sludge landfarm operation, where dried sewage sludge from the local waste water treatment plant is mixed with native soil for use as an alternative daily cover; 2) the use of other state-approved alternative daily cover methods such as synthetic tarps, wood chips, and spray-applied cementitious products; 3) the implementation of an alternative frequency of cover placed in the construction and

demolition waste management unit; and, 4) periodic use of a propane cannon or other methods for bird control.

EIR SUPPLEMENT REQUIREMENTS

A supplement to the Mono County General Plan Land Use Amendments Environmental Impact Report is proposed for this project as allowed by Section 15163 (a) of the CEQA Guidelines:

- "(a) The Lead Agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:
- (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and
 - (2) Only minor additions or changes would be necessary to make the previous EIR adequate for the project as revised."

Supplements to EIRs are intended to augment a previously-certified EIR to the extent necessary to address changed conditions. This supplement to the Mono County General Plan Land Use Amendments Environmental Impact Report addresses State planning law requirements for supplements to previously-approved Environmental Impact Reports (EIRs). Prior environmental and planning documents (e.g., the Mono County Master Environmental Assessment, the Mono County General Plan) are incorporated by reference.

Supplements to EIRs must address the following (CEQA Guidelines Section 15163):

- (b) The supplement to the EIR need only contain the information necessary to make the previous EIR adequate for the project as revised.
- (c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.
- (d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.
- (e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

SEE FIGURE 1
Location Map

SEE FIGURE 2
Vicinity Map

II. PROJECT DESCRIPTION

LANDFILL SETTING

Benton Crossing Landfill is located at 899 Pit Road, off Benton Crossing Road in Long Valley in southern Mono County (see Figure 1, Regional Map). The landfill is located approximately 10 miles southeast of the Town of Mammoth Lakes in portions of Section 16, Township 3 South, Range 29 East, Mount Diablo Base and Meridian (MDB&M).

Property surrounding the landfill site is either owned by the Los Angeles Department of Water and Power (LADWP) or is public land managed by the Bureau of Land Management (BLM). LADWP lands in the project vicinity are designated Open Space (OS) and are managed primarily for grazing and watershed protection. BLM-administered lands are designated Resource Management (RM) and are managed primarily for grazing and dispersed recreation.

The landfill is located in a rural, undeveloped setting in the western portion of Long Valley, a visually open area with long sight lines. Vegetation in surrounding areas is primarily low-lying sagebrush scrub. The landfill is situated on a terrace approximately 30 feet higher than the surrounding relatively flat basin geomorphology (RDSI, p. 13, also see Appendix B, Drawing 2, Existing Topography). Although the area is open and the landfill is slightly higher than the surrounding area, localized topography varies enough to provide some topographic screening of the landfill from various viewpoints.

The prevailing wind direction at the landfill is from the southwest. Local winds are calm (less than 11 miles per hour) approximately 79 percent of the 24-hour day. The majority of precipitation on-site occurs during the months of November through March, with much of that in the form of snow. Average annual precipitation at the nearest meteorological weather station in Lee Vining is 13.01 inches. Average monthly temperatures range from 29.7°F in January to 67.9°F in July. Site soils consist primarily of basin sediments including gravelly sand, silt, and clay. Depth to static groundwater varies across the site from approximately 18 to 30 feet below ground surface (bgs).

The landfill is accessed from US 395 on paved roads maintained year-round by the County.

FACILITY OVERVIEW

PERMITS

Benton Crossing Landfill is a Class III municipal solid waste landfill, permitted under Solid Waste Facility Permit No. 26-AA-0004, issued by the Mono County Health Department in July 1978. The site is also authorized to operate as a municipal solid waste landfill and sludge landfarm by the Lahontan Regional Water Quality Control Board (LRWQCB) under Waste Discharge Requirements WDID No. 6B260300002.

WASTE TYPES

Benton Crossing Landfill accepts the following general types of waste for disposal or management:

- Non-hazardous solid waste in accordance with 27 CCR 20220; and,

- Non-friable asbestos-containing wastes (ACW) in accordance with Section 25143.7 of the California Health and Safety Code.

In addition to typical non-hazardous municipal solid waste, the landfill accepts the following types of source-separated waste for management through its waste diversion program:

- Wood waste;
- Scrap metal;
- White goods and appliances;
- Waste tires;
- Non-hazardous dried sewage sludge; and
- Cathode Ray Tubes (CRTs), Consumer Electronic Devices (CEDs), household hazardous waste (HHW), and used motor oil and filters.

WASTE QUANTITIES

Benton Crossing Landfill received an average of 108 tons of waste per day in 2002 and 2003 for management or disposal.

- Approximately 71 percent, by weight, of waste received (77 tons per day, TPD) was landfilled;
- Approximately 29 percent, by weight, of waste received (31 TPD) was diverted;
- Landfilled waste was approximately 67 percent, by weight, municipal solid waste and 33 percent, by weight, construction and demolition waste;
- Diverted waste was approximately 47 percent inert debris, 24 percent wood and green waste, 24 percent dried sludge (used for alternative daily cover), and 5 percent other waste (such as scrap metal, tires, and appliances);
- Approximately 73.4 percent, by weight, of all waste received at Benton Crossing Landfill was generated in the Town of Mammoth Lakes, the county's only incorporated community.

WASTE VOLUMES

Benton Crossing Landfill received an annual average of approximately 38,600 tons of waste in 2002 and 2003, resulting in approximately 27,500 tons of landfilled waste and 11,100 tons of diverted waste per year. Table 2.2 in the Report of Disposal Site Information (RSDI) for the Benton Crossing Landfill contains detailed data of the amounts and types of waste received at the landfill, including average daily and average annual waste quantities for each category of waste type.

HOURS OF OPERATION

Benton Crossing Landfill is open to the public eight hours per day on weekdays and four hours per day on weekends. The landfill operates 358 days per year. On landfill holidays, the site may be made available on a very restricted basis to local commercial garbage haulers.

DAILY & SEASONAL VARIATION IN DISPOSAL QUANTITIES

Daily loading of waste at Benton Crossing Landfill is highly dependent on season and time of week. The following data from 2003 illustrate the seasonal and daily variation in waste loading (RDSI, p. 8):

Annual Average Weekday:	135.9 TPD
Average Summer Weekday (May 1 - Sept. 30):	174.9 TPD
Average Winter Weekday (Oct. 1 - April 30):	107.9 TPD
Annual Average Weekend Day:	23.2 TPD
Average Summer Weekend Day (May 1 - Sept. 30):	31.3 TPD
Average Winter Weekend Day (Oct. 1 - April 30):	17.2 TPD

The RDSI for Benton Crossing Landfill (RDSI, p. 8) also notes that:

“In addition to normal seasonal and weekly variations in the waste stream, the quantity of waste received in the course of a day, week or season can be strongly influenced by construction or demolition projects. This was best exemplified during the 2001 construction season when a cluster of buildings were demolished in Mammoth Lakes to make way for a new resort complex. The total waste received in the months of July and August, 2001, reflected a 43 percent and 95 percent increase, respectively, over the quantities typically received in those months at the Benton Crossing Landfill.”

ESTIMATED WASTE FLOW AND SITE LIFE

Short-term waste flows were calculated based on detailed records of waste received in 2002 and 2003 and population growth projections for the Town of Mammoth Lakes, since the Town accounts for approximately 75 percent of all waste received at the landfill. The remaining 25 percent of waste is generated in the unincorporated area of Mono County in the vicinity of the landfill or transferred from transfer stations located in unincorporated communities throughout the county. Long-term waste flows were calculated using California State Department of Finance population projections for Mono County.

Detailed results of the waste flow calculations are contained in Table 2.6.3 and Appendix E of the RDSI for Benton Crossing Landfill. The total annual amount of waste landfilled is estimated to increase from 29,000 tons per year in 2004 to 38,800 tons per year in 2023 (RDSI, Appendix E, Table E-1). The resulting daily disposal rate is calculated to increase from 81.0 tons per day in 2004 to 108.4 tons per day in 2023 (RDSI, Appendix E, Table E-1).

Based on the loading rate calculations presented in Appendix E of the RDSI, the remaining capacity of Benton Crossing Landfill should accommodate the waste disposal requirements of the service area through the year 2023.

EXISTING FACILITIES

Existing facilities at Benton Crossing Landfill include the following:

- ◆ Landfill access road and entrance gate;
- ◆ Scalehouse (with restroom);
- ◆ Locker room and supply building;
- ◆ Work shop and tool shed;
- ◆ Equipment storage areas;
- ◆ Emergency generator shed;
- ◆ Hazardous materials storage buildings;
- ◆ Landfill gas monitoring wells and vents; and,
- ◆ Groundwater monitoring wells.

GENERAL DESIGN PARAMETERS

The landfill is designed to serve the residents and businesses of unincorporated Mono County and the Town of Mammoth Lakes. The County operates transfer stations in Benton, Bridgeport, Chalfant, Lee Vining (Pumice Valley), Paradise, and Walker. Mammoth Disposal, Inc., operates the Mammoth Lakes Transfer Station.

The proposed landfill design includes a vertical fill area over the existing waste footprint. The landfill is unlined and will be covered at closure by a final cover comprised of a geosynthetic clay liner (GCL) overlain by a growth medium/erosion layer.

The landfill is designed to provide sufficient disposal capacity for the existing and projected service population through the year 2023. Separate waste management units are operated on-site for municipal solid waste and construction and demolition waste. Facility operation and design limit public access to the working face. The landfill design also incorporates a sitewide drainage control system designed to satisfy state performance standards and to accommodate the predicted storm water flows generated by a 100-year, 24-hour precipitation event without significant site erosion or washout of waste.

PERSONNEL

The landfill is currently staffed with six permanent employees -- one laborer, one gate attendant, three equipment operators, and one site supervisor. Staffing on weekdays typically varies between three and six personnel; weekend staffing typically includes only one gate attendant and one equipment operator. Personnel from the County's Road Districts are utilized when necessary to fill in for absent landfill personnel, to complete site tasks, or to satisfy other operational requirements.

SPREADING AND COMPACTION

Waste is spread in loose layers approximately 24 inches thick and compacted using 3 to 5 passes with a Caterpillar 816 landfill compactor. The layers to be compacted are spread to a slope of 4H:1V or flatter in order to take advantage of the compactor's improved performance on flatter slopes. The working face is built up in compacted layers to a total height of 10 to 15 feet.

COVER MATERIALS

Cover materials for the landfill include soil extracted from the soil borrow pit to the north of the landfill site as well as soil, gravel, road grindings, and similar materials generated by road construction and other projects. Alternative daily covers (ADCs) that meet state requirements may also be used, e.g., tarps, geosynthetics, foam, processed green material, sludge or sludge-derived materials, compost material, processed C&D waste, shredded tires, or spray-applied cementitious products.

ADCs used at Benton Crossing Landfill have included: synthetic tarps, a sludge and soil mixture meeting state requirements, obtained from the sludge farm operations at the landfill, and the Posi-Shell® Cover System. The sludge/soil mixture is used primarily in the C&D unit in drier months. Borrow soil and synthetic tarps are used throughout the year in the MSW unit. Due to the relatively high cost of the Posi-Shell® Cover System, its use in the MSW unit has been temporarily discontinued. Mono County may reconsider its use, or the use of a similar product, sometime in the future. Processed green material such as wood chips may also be used as an alternative daily cover, depending on need and availability.

COVER FREQUENCY

Approximately six days per week, an alternative daily cover is applied to the active MSW disposal face at the end of each operating day. On the seventh day of the week, a minimum of six inches of soil or sludge/soil mixture is applied to the full active face, or more frequently if necessary because of weather conditions, size of the working face, or other factors. The working face is narrowed to a two-tarp width (roughly 45-50 feet) at the end of the operating day by applying and compacting a sufficient column of cover soil and the remainder is covered with synthetic tarps.

An intermediate cover of 12 inches of soil or sludge/soil mixture is applied over filled areas not expected to receive additional waste disposal for more than 180 days. A three- to six-inch layer of wood chips generated through the on-site wood waste diversion program is then applied to prevent erosion of cover materials. The top of each waste lift is typically covered by intermediate cover when full lift height is achieved and as the active face progresses according to the fill sequencing plan.

Waste in the C&D unit is compacted and covered with a minimum of six inches of compacted soil or sludge/soil mixture at least once per week, or more frequently as necessary to control vectors, fires, odors, and blowing litter. Typically, the waste is compacted and pushed into the working face on a daily basis but is covered once per week. Waste in the dead animal monofill is covered the day the waste is received.

WASTE DIVERSION

Portions of the waste stream are diverted from disposal to comply with solid waste regulations or to meet state-mandated diversion goals. Materials are either delivered source-separated or are removed through salvaging activities performed on-site by landfill personnel.

- ◆ **Scrap metal** is stockpiled on-site and then processed, baled, and removed from the site by a licensed contractor to a recycling site.
- ◆ **Appliances** are separated into refrigerated and non-refrigerated units and stockpiled on-site. A licensed vendor contracted by the County is periodically scheduled to remove Freon, motor oil, capacitors, mercury switches, and other hazardous materials. The appliances are then combined with the scrap metal and removed by a licensed contractor to a recycling site.
- ◆ **Auto bodies, mobile homes, and campers** are temporarily stockpiled on-site and periodically processed. Landfill personnel drain fluids and remove tires and batteries. The County's contract vendor removes hazardous materials such as Freon. The County's contract metal salvager periodically delivers a car-crusher to the site, crushes the vehicles, and hauls them to a recycling site. The County also hauls auto bodies to an auto salvager in Benton. Appliances are removed from mobile homes and campers, metal is salvaged for the scrap metal stockpile, and the remainder of those vehicles is crushed and buried in the C&D unit.
- ◆ **Wood waste** is stockpiled for periodic chipping with a horizontal shredder. Wood chips may be used for protecting intermediate cover as a deterrent to wind erosion, as an alternative daily cover, as erosion protection for final cover, or they may be made available to the public or public agencies.
- ◆ **Passenger car and truck tires** are stockpiled, counted, and placed in a box trailer stationed at the site by the County's contract tire hauler. When the trailer has reached capacity, the contract hauler is scheduled to remove the trailer and replace it with an empty trailer. The waste tires are typically transported to a cement kiln for use as fuel.

Oversized tires, such as those for wheel loaders and tractors, are stockpiled and removed separately.

- ◆ **Hazardous household waste** is accepted from local residents and stored in pre-fabricated hazardous waste buildings. Some materials, such as paints, stains, and flammables, are consolidated in bulk containers, such as 55-gallon drums, by landfill personnel. When a sufficient volume is collected, a licensed hazardous waste hauler is contracted to perform final bulking and packaging and the load is removed for delivery to permitted hazardous waste recycling, treatment, or disposal facilities, as appropriate.
- ◆ **Lead-acid batteries, anti-freeze, and universal wastes** are collected, stored, and removed in the same way as household hazardous waste.
- ◆ **Used motor oil and oil filters** are stored and removed for recycling by a licensed transporter.
- ◆ **Televisions and computer monitors with cathode ray tubes (CRTs)** are stacked on pallets, plastic-wrapped, until a full tractor-trailer load is reached when they are transported by a licensed hauler to a permitted processing and recycling facility.
- ◆ **Consumer electronic devices (CEDs)** are stored loose in containers and periodically removed by a licensed hauler to a permitted processing and recycling facility, if possible, at the same time and on the same load, as CRT removal.

Benton Crossing Landfill also receives diverted waste (except wood waste and auto bodies) from the County's transfer stations. In general, the periodic removal of salvageable materials is coordinated at a frequency specific to each material so that the risk of fire and the potential for impacts to public health and safety are minimized.

WASTE HANDLING

All customers arriving at the landfill are stopped at the scalehouse where the attendant performs a visual inspection to determine the presence of prohibited or hazardous wastes. Approved self-haul loads are directed to a bin area near the landfill entrance; they are typically not allowed near the active face unless their load is too large or contains items too bulky for the bin. Commercial vehicles and public agency vehicles are directed to a designated dumping area adjacent to the working face in either the MSW unit or the C&D unit, depending on the nature of their waste.

In addition to non-hazardous household and commercial waste and construction and demolition waste, the following wastes accepted by the landfill are handled as follows:

- **Non-Friable Asbestos-Containing Waste (ACW)**. ACW is handled on a case-by-case basis in accordance with recommendations from the Mono County Health Department. The waste is delivered to the dead animal monofill and immediately covered with soil.
- **Sludge**. Dried sewage sludge from the Mammoth Community Water District (MCWD) is delivered to the sludge landfarm by MCWD personnel where it is managed by a contractor hired by the MCWD.
- **Dead Animals**. Dead animals are directed to the dead animal monofill where they are typically covered immediately with a minimum of 12 inches of soil.
- **Ash**. Ash from residential fireplaces and wood stoves is directed to the dead animal monofill.
- **Medical Waste**. Treated medical waste is accepted for disposal with the municipal solid waste stream. Untreated medical waste is not accepted.

- **Inert Waste.** Inert waste is segregated from municipal waste and deposited in the inert waste disposal area.

NUISANCE CONTROL

Benton Crossing Landfill utilizes a number of practices to minimize public nuisances, as follows:

- **Fire.** A stockpile of cover soil is maintained in the vicinity of the working face, a 4,000-gallon water truck is on-site, and fire extinguishers are installed in all structures and equipment on-site. Landfill personnel are trained in fire prevention and suppression activities.
- **Leachate.** The landfill does not include a base liner or leachate collection and recovery system. Generation of contact water is minimized through the application of daily cover and the diligent execution of grading practices that direct storm flows away from the active disposal area.
- **Dust Control.** Landfill access roads are paved. Internal access roads are constructed from compacted asphalt grindings. Fugitive dust on-site is minimal and is controlled with watering as necessary. Dust generation from cover surfaces is minimized through the application of wood chips.
- **Vectors.** Waste at the active face is compacted and covered daily to reduce access to the waste mass and to eliminate food sources and nesting areas. Dead animals are covered at the end of the day they are received to prevent the attraction of insects and scavengers. Proper surface grading to promote drainage and prevent ponding, as well as liquid waste disposal restrictions, minimize the presence of standing water and potential insect breeding areas.
- **Drainage and Erosion.** The landfill includes perimeter and internal run-off control facilities designed to collect and control precipitation and storm flows resulting from the 100-year, 24-hour storm event. Construction of the storm water control system will develop throughout the operational life of the landfill.
- **Litter.** Wind-blown litter is picked up on a daily basis. A portable, semi-permanent, five-foot-high fence is installed around the working face and is moved as necessary to encompass the downwind boundary of the active working face and to minimize the escape of blowing litter.
- **Noise.** The landfill is operated only during daylight hours. All landfill equipment is equipped with noise attenuation devices.

TRAFFIC

Traffic at the landfill varies seasonally as noted below:

Average Summer Weekday	43.7 vehicles/day
Peak Average Day, Summer Weekday	46.5 vehicles/day (Tuesday)
Peak Average Hour, Summer Weekday	5.8 vehicles (2-3 pm)
Average Winter Weekday	24.8 vehicles/day
Peak Average Day, Winter Weekday	26.5 vehicles/day (Monday)
Peak Average Hour, Winter Weekday	3.9 vehicles (1-2 pm)

General observations and a review of gate receipts indicate that the vast majority of vehicles entering the landfill, and therefore the majority of the waste, is from garbage trucks, construction contractors, public agencies, and other commercial vehicles.

PROJECT OBJECTIVE

The objective of the project is to expand the property boundaries and the Public Facilities (PF) land use designation at Benton Crossing Landfill to allow for the installation and maintenance of additional environmental monitoring devices and drainage facilities, to provide sufficient soil borrow resources to meet daily, intermediate, and final cover needs for the remainder of the facility's life and to permit a variety of landfill activities on-site to meet the needs of the waste disposal requirements of the service area through the year 2023. Meeting the project objective will require approval of General Plan Amendment 04-02 and Use Permit 37-04-08.

III. ENVIRONMENTAL ANALYSIS

PURPOSE OF THE ANALYSIS

The following chapter determines if there are potentially significant impacts on the environment resulting from the implementation of the project; mitigation measures are proposed which can reduce or eliminate any such impacts. Since this is a supplement to a previously-approved EIR, this analysis summarizes the environmental analysis from the Mono County General Plan Land Use Amendments FEIR, supplements that analysis where necessary, reiterates mitigation measures identified in the Mono County General Plan Land Use Amendments FEIR, and examines alternatives and cumulative impacts.

PROJECT INFORMATION

Landowner: Los Angeles Department of Water and Power (LADWP)
Landfill Operator: Mono County Department of Public Works

Solid Waste Facility Permit No.: SWIS #26-AA-0004
Waste Discharge Requirements No.: WDID #6B260300002

Area of Existing Landfill: 95.05 acres leased from LADWP
Expansion Area: 50.01 acres on land leased from LADWP
Existing Uses: Landfill
Surrounding Uses: Open space
Access: Benton Crossing Road to Pit Road
Water Source: Bottled water for drinking, holding tank for wash water
Sewage Disposal: Septic holding tank
Energy Sources: Power generator

ACTIONS INITIATING THE EIR SUPPLEMENT

Benton Crossing Landfill currently resides on approximately 95.05 acres of land leased from the Los Angeles Department of Water and Power (LADWP). Mono County, the landfill operator, proposes to expand the property by approximately 50.01 acres in total, consisting of 15.00 acres adjacent to the eastern boundary of the landfill and 35.01 acres adjacent to the current northern boundary. The proposed expansion areas are located on land owned by LADWP that is currently designated Open Space (OS). The landfill site is designated Public and Quasi-Public Facilities (PF). Specific regulatory actions required for the project include:

1. Adoption of General Plan Amendment #04-02 to redesignate the 50.01 acres from Open Space (OS) to Public and Quasi-Public Facilities (PF).
2. Approval of Use Permit Application #37-04-08.

The "project" analyzed in this Supplemental EIR is the expansion of the property boundaries and the Public Facilities (PF) land use designation at Benton Crossing Landfill to allow for the installation and maintenance of additional environmental monitoring devices and drainage facilities, to provide sufficient soil borrow resources to meet daily, intermediate, and final cover

needs for the remainder of the facility's life and to permit a variety of landfill activities on-site to meet the needs of the waste disposal requirements of the service area through the year 2023. Meeting the project objective will require approval of General Plan Amendment 04-02 and Use Permit 37-04-08.

AGENCIES REQUIRED TO ACT ON THE PROJECT

Mono County, as the Lead Agency for the project, is responsible for processing and considering approval of the General Plan Amendment and the Use Permit, as well as certifying the adequacy of the Supplement to the EIR. There are no other agencies that will be required to act on the General Plan Amendment and the Use Permit. The Supplement to the EIR will provide project environmental information for other state and local agencies when evaluating their issuance of a revised solid waste facilities permit and revised waste discharge requirements which are being considered to make them consistent with current operations and state regulations governing solid waste landfill operations.

METHODOLOGY

The following environmental analysis is based on review of the project plan documents, review of relevant local plans and policies, consultation with interested agencies, review of pertinent environmental data, and review of previously prepared environmental documents for projects in the vicinity.

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

The following analysis summarizes the environmental analysis from the Mono County General Plan Land Use Amendments EIR, supplements that analysis where necessary, identifies mitigation measures, and examines project-specific alternatives and cumulative impacts.

LAND USE

Setting. The project site is located in Long Valley, approximately 12 miles southeast of Mammoth Lakes and approximately 2.5 miles northwest of the point where the Owens River discharges into Lake Crowley. Land surrounding the project site on all sides is open space, used primarily for wildlife habitat, watershed protection, grazing and dispersed recreation.

The project site is designated Public and Quasi-Public Facilities (PF). Surrounding land on all sides, including the areas proposed for property expansion, is designated Open Space (OS). The landfill site and the immediately adjacent land on all sides are owned by the Los Angeles Department of Water and Power (LADWP). Land slightly more removed from the landfill site is public land managed by the Bureau of Land Management (BLM).

The intent of the Open Space (OS) designation is to:

“...protect and retain open space for future generations. These lands may be valuable for resource preservation (e.g., visual open space, botanical habitat, stream environment zones, etc.), low-intensity recreational uses, mineral resources, or other reasons.”
(Mono County Land Development Regulations, Open Space Designation)

Permitted uses within the Open Space designation include crop and tree farming, trails for biking, walking, skiing and equestrian use, wildlife preserves, botanical preserves and similar uses, and single family dwellings. Uses permitted subject to Use Permit include recreational areas requiring significant modification of the natural landscape (e.g., golf courses, tennis courts, commercial stables), accessory buildings and uses, water storage tanks, and mineral exploration activities.

The Preliminary Closure and Postclosure Maintenance Plan (PCPMP) for Benton Crossing Landfill notes that "it is anticipated that following the closure and postclosure period, the landfill property will be changed back to an 'Open Space' designation in accordance with the County General Plan" (PCPMP for Benton Crossing Landfill, p. 3).

Land Use Impacts. Portions of the proposed property expansion areas are currently disturbed with existing landfill uses including portions of Pit Road, landfill gas and ground water monitoring wells, and areas historically utilized for surface disposal of inert debris. The expansion of the property boundaries would allow additional landfill operations and monitoring activities to occur in the proposed expansion areas. Property expansion to the east will incorporate existing monitoring wells and allow for the installation and maintenance of additional environmental monitoring devices and a storm water detention basin. Expansion to the north will provide sufficient soil borrow resources to meet daily, intermediate, and final cover soil needs for the remainder of the facility's life.

The expansion areas are not as useful as other open space areas since they are adjacent to an existing landfill operation and since they are currently disturbed with landfill uses. There are no valuable wildlife habitat, vegetation, or cultural resources in the expansion areas (see following sections in this chapter on Vegetation and Wildlife and Cultural Resources). The areas immediately adjacent to the landfill cannot be used for recreation since they are disturbed with landfill activities and are not valuable visual resources for the same reason.

The proposed landfill expansion is consistent with the provisions of the PF, Public and Quasi-Public Facilities, section of the Mono County Land Development Regulations. The PF designation allows solid waste facilities, landfills, and household hazardous waste facilities subject to Use Permit. There are no requirements for minimum setbacks, maximum lot coverage, or maximum building height.

Mono County has reached an agreement with the landowner, the Los Angeles Department of Water and Power (LADWP), to operate the landfill for an additional 20 years (through 2023). The landfill design presented in the Preliminary Closure and Postclosure Maintenance Plan (PCPMP) for Benton Crossing Landfill reflects that agreement. The PCPMP notes that all site structures and facilities not needed during the postclosure period will be dismantled and removed from the site during closure construction. The only facilities remaining at the time of closure that will remain on-site during the postclosure maintenance period of 30 years will be environmental monitoring and venting systems, components of the storm water management system, access roads, existing perimeter fencing around the waste disposal area (4-strand barbed-wire), and

access gates. Once the postclosure maintenance period has expired, public access to the site may be allowed in accordance with the PCPMP, if it is approved by applicable regulatory agencies (PCPMP, p. 4).

No significant impacts to land use are anticipated from the redesignation of the expansion areas from Open Space (OS) to Public and Quasi-Public Facilities (PF). In addition, the landfill uses on-site are temporary; once the landfill is closed and the postclosure maintenance period has expired, the land use on-site is anticipated to revert to open space uses.

Conclusion: The operation of Benton Crossing Landfill within expanded boundaries will not create potentially significant impacts to land use.

Land Use Mitigation Measures

No land use mitigation measures are proposed.

Land Use Mitigation Monitoring

No land use mitigation monitoring is proposed.

POPULATION, HOUSING, EMPLOYMENT

Benton Crossing Landfill is currently staffed with six permanent employees, consisting of one laborer, one gate attendant, three equipment operators, and one site supervisor. The daily work schedule is comprised of up to six employees on weekdays, but is limited to two on weekends. The weekday staff typically varies between three and six personnel, whereas weekend staff includes only one gate attendant and one equipment operator. Personnel from the County's Road Districts within the Department of Public Works are utilized on an as-needed basis to fill in for absent landfill personnel, to complete site tasks, or to satisfy other operational requirements. Contractors are utilized for certain tasks, such as the required ground water monitoring and landfill gas monitoring programs and the sludge landfarm operations.

The personnel requirements for Benton Crossing Landfill are not expected to change as a result of the expansion of the landfill (E. Nikirk, pers. comm.). Short-term projects outside of the daily operation and maintenance of the landfill will be performed by contractors (e.g., installation of litter fencing, construction of new gas and groundwater monitoring wells) (E. Nikirk, pers. comm.). The sludge farm operation is also staffed by non-County personnel and a contractor. That is not expected to change in the near-term, but may change when the current operations contract with Mammoth Community Water District (MCWD) expires.

Since the landfill is fully staffed now and since there will be no requirements for additional personnel, there will be no impacts to employment and, therefore, no associated impacts to population or housing. Supplemental analysis is not required.

Conclusion: The operation of Benton Crossing Landfill within expanded boundaries will not create potentially significant impacts to employment, population, or housing.

Population, Housing, and Employment Mitigation Measures

No mitigation measures are proposed.

Population, Housing, and Employment Mitigation Monitoring

No mitigation monitoring is proposed.

PUBLIC SERVICES

General Governmental Services. The operation of Benton Crossing Landfill within expanded boundaries is not anticipated to affect General Governmental Services. Supplemental analysis is not required.

Law Enforcement. The operation of Benton Crossing Landfill within expanded boundaries is not anticipated to affect Law Enforcement Services. Supplemental analysis is not required.

Fire Protection Services. Fire protection services for the landfill are provided by the California Department of Forestry, Owens Valley Unit. To prevent and suppress landfill fires, the Benton Crossing Landfill maintains a stockpile of cover soil in the vicinity of the working face, a 4,000 gallon water truck is available on-site, and fire extinguishers are installed in site vehicles, heavy equipment, and structures. Smoking and open burning are prohibited and ash is disposed of in the dead animal monofill and all landfill equipment is equipped with spark arrestors. Mono County also maintains a brush free zone around the landfill to protect against impacts from wildland fires.

The landfill has an Emergency Response Plan to be implemented in the event of an emergency at the facility (see Appendix H of the Report of Disposal Site Information for Benton Crossing Landfill). Landfill personnel are routinely trained in fire prevention and suppression activities and are prepared to provide immediate fire suppression activities in the event of a structure fire or a fire at the active disposal face. On-site communications systems provide for contact with 911 and the Public Works office. The operation of Benton Crossing Landfill within expanded boundaries is not anticipated to create the need for additional Fire Protection Services. Supplemental analysis is not required.

Sewer. Benton Crossing Landfill has a septic holding tank for the on-site restroom. Restroom facilities are available only to site personnel. The operation and expansion of the landfill will not create the need for additional personnel; therefore, there will be no need for an expanded holding tank. Supplemental analysis is not required.

Water. Bottled water is provided at the scalehouse for drinking. The on-site restroom is supplied with wash water from an underground storage tank equipped with a pump and pressure tank. Water for the restroom is trucked on-site from an off-site source. Restroom facilities and drinking water are available to site personnel but not to the public unless absolutely necessary. The operation and expansion of the landfill will not create the need for additional personnel; therefore, there will be no need for expanded water supplies. Supplemental analysis is not required.

Non-potable water is also used to control fugitive dust from roadways. Fugitive dust generation from the main access road and internal site roads is minimal since those roads are paved or constructed from compacted asphalt grindings. The operation and expansion of the landfill will not create the need for additional water for dust control. Supplemental analysis is not required.

Schools. The operation of Benton Crossing Landfill within expanded boundaries will not increase the population or employment and will not affect the school system. Supplemental analysis is not required.

Solid Waste. The project is to vertically expand Benton Crossing Landfill and increase its capacity. The Report of Disposal Site Information (RDSI) for Benton Crossing Landfill contains Site Life and Loading Calculations for the landfill (see Appendix E in the RDSI). The remaining site life was estimated using annual population growth rates for the Town of Mammoth Lakes and Mono County. Those population growth rates are the basis for waste stream projections. The RDSI notes that "based on the loading rate calculations, the remaining capacity of the Benton Crossing Landfill should accommodate the waste disposal requirements of the service area through the year 2023" (RDSI, p. 11).

During the initial comment period for the SDEIR, one issue related to the capacity of the landfill was raised, i.e.:

- Increased county population growth could lead to a greater than predicted impact on the landfill. How can this be accounted for?

The loading rate calculations used to estimate the site life of the landfill are based on detailed records of waste received in 2002 and 2003, a period of great growth in the County, and current population projections for the Town of Mammoth Lakes and Mono County. The loading rate calculations reflect the impacts of increased growth in the county as accurately as possible.

Another issue related to landfill capacity that has arisen recently pertains primarily to construction-related debris. The US Forest Service has recently changed its management approach to the Airport Pit, located on public lands managed by the USFS behind Mammoth Airport. For a long time, the USFS has allowed contractors to dump soil, rock, boulders, concrete, stumps and asphalt there free of charge. They are now limiting the debris disposed of there to 100 percent inert debris (i.e., no stumps, concrete, or asphalt). Depending on local construction activities, more concrete, asphalt, and stumps may show up at the landfill. These materials may be diverted from the main waste stream, processed, and utilized for cover or road construction.

During the initial comment period for the SDEIR, one issue related to the capacity of hazardous materials (Hazmat) storage on-site was raised, i.e.:

- Is the proposed Hazmat storage adequate? Should capacity be increased?

The expansion plans for Benton Crossing Landfill include the installation of additional covered storage for household hazardous waste. The landfill does not accept any other type of hazardous materials or waste. Current plans are for a pole-barn style structure with a concrete slab and perimeter containment curbing mounted with a perimeter chain-link fence with vinyl slats. This design would provide a covered work area protected from the weather, but would allow air circulation. The installation of a new household hazardous waste facility is dependent upon securing a grant from the California Integrated Waste Management Board to supplement the landfill's existing facilities.

Utilities. Benton Crossing Landfill is not served by any utility companies. On-site water and sewer services are discussed above. Power is provided by a generator that the County plans to replace with an alternative source such as solar panels and battery packs. Additional analysis is not required.

Conclusion: The operation and expansion of Benton Crossing Landfill will not create potentially significant impacts to public services.

Public Services Mitigation Measures

No mitigation measures are proposed.

Public Services Mitigation Monitoring

No mitigation monitoring is proposed.

GEOLOGY AND SOILS

Geology and Soils Setting. The following information on geology and soils is excerpted from the Preliminary Closure and Postclosure Plan for Benton Crossing Landfill, Appendix D, Slope Stability Analysis.

The Benton Crossing Landfill lies within the eastern portion of the Long Valley Caldera, between the Sierra Nevada Mountains to the west and the Glass Mountain Ridge to the east and northeast. The oldest rocks associated with the Long Valley magma chamber are the rhyolite flows that slowly formed Glass Mountain between 1 and 2 million years ago. Approximately 0.7 million years ago an estimated 125 cubic miles of materials was extruded to form the Bishop Tuff...

Subsurface sediments beneath the landfill, as documented during monitoring well installation by Kleinfelder (1989), are characterized by increasing fines content with depth. The sediments logged during well installation were classified as gravelly silty sand from the surface to as deep as 30 feet below ground surface (bgs), underlain by interbedded sandy silt and sandy clay from as shallow as 10 feet bgs to the depth explored. There are currently two distinct sediments present in the soil borrow area, including poorly graded gravel with silt and sand and poorly graded sand with silt...

The sediments beneath and within which the landfill is situated were described by Lipshie (1976). The silts, clays and fine sands are lacustrine sediments that formed within the Pleistocene Long Valley Lake. Subsequent draining of the lake resulted in the deposition of fluvial sequences of sand and gravel...

Groundwater was encountered during drilling between 21 and 33 feet bgs. Current groundwater monitoring data indicate static groundwater levels between 20 and 30 feet bgs.

Benton Crossing Landfill is located on a low ridge between alkali meadows to the north, Big Alkali Lakes to the west, and the Owens River to the east. Soils on-site are mapped as Pits-dumps complex, 0-50 percent slopes on the site of the existing landfill; Haploduridic Xeric Torriorthents, 0-9 percent slopes northeast of the existing landfill; and Dechambeau gravelly sandy loam, dry, 0-2 percent slopes on lands surrounding the remainder of the landfill (JBR).

Seismicity. The following information on faulting and seismicity is excerpted from the Preliminary Closure and Postclosure Plan for Benton Crossing Landfill, Appendix D, Slope Stability Analysis.

The Benton Crossing Landfill is situated within the Eastern California Shear zone as defined by Jennings (1985). The region around the Long Valley Caldera is structurally bordered on the west

by the northwest-trending Hilton Creek, Laurel Convict, and Hartley Springs faults and on the east by a concentric series of Holocene faults associated with subsidence in the caldera...

The site is not located within a currently-designated Alquist-Priolo Earthquake Fault Zone....The closest Holocene fault to the landfill site identified by Jennings (1994) is a group of splays on the Hilton Creek fault where the northwest-trending fault enters the Long Valley Caldera, approximately 3 miles southwest of the facility. The Hilton Creek Fault is a range-bounding normal fault (USGS, 2004). Surface-fault rupturing evident in the area is a result of four earthquakes in 1980 with moment magnitudes greater than Mw 6 (Taylor and Bryant, 1980). The Hilton Creek Fault generally steps complexly northwest after entering the caldera and joins up with the Hartley Springs Fault (USGS, 2004).

Soils Impacts. Potential soil erosion impacts of the vertical expansion of the landfill are addressed in the Report of Disposal Site Information (RDSI) for Benton Crossing Landfill. Soil erosion impacts for the final grading plan are addressed in the Preliminary Closure and Postclosure Maintenance Plan (PCPMP) for Benton Crossing Landfill. Both the ongoing landfill operations and the final graded site have been designed to avoid or minimize soil erosion impacts.

The RDSI for Benton Crossing Landfill contains a section on dust control (Section 4.13.4) that states that Pit Road and the landfill entrance road are paved to a point approximately 100 feet west of the truck scale and internal access roads are constructed from compacted asphalt grindings. Fugitive dust generation from on-site roads is minimal and the roads are watered when necessary to prevent excessive generation of fugitive dust. Dust erosion from the soil borrow pit is also addressed through watering when necessary.

Final cover for the landfill will include several layers of soil and a geosynthetic clay liner (GCL) overlaid with 12 inches of nominally compacted soil and 3 to 6 inches of wood chips to protect the final cover from the effects of wind and water erosion and rain drop impact. The 12 inches of soil over the GCL is intended to accommodate root growth for naturally-occurring vegetation. Final closure plans for the landfill do not contain any plans for revegetation; naturally-occurring revegetation is expected to slowly colonize the site. Mono County has successfully used wood chips for erosion protection at several of the County's existing landfill and transfer station sites. The effectiveness of wood chips in this application will be routinely monitored and evaluated in compliance with State regulations. An alternative method of erosion control will be implemented if necessary. The potential for wind and water erosion of the final cover surface is considered negligible due to use of the wood chip layer (PCPMP, p. 5).

Potential soil erosion impacts may occur from the expansion of the landfill to include the additional acreage to the east and north of the existing landfill. The expansion area to the east contains monitoring wells and Pit Road. Additional monitoring wells and a storm water detention basin will be constructed in this area. Construction of those wells and the storm water detention basin may create short-term soil erosion impacts.

The expansion areas to the north will be utilized as a soil borrow pit. The majority of the soil to be excavated from the soil borrow pit (roughly 240,000 cubic yards) will be excavated at the very end of the landfill life, when soil will be needed for final cover construction on the landfill. The final design for the soil borrow area is a pit sloping to the east. There are currently some old piles of concrete, asphalt, boulders and tree stumps (classified as "inert debris") sitting on the ground north of Owens River Road. As the County excavates the new borrow pit, the western-most portion of the site will be backfilled with the inert debris. That material will then be covered with

soil only, consistent with the regulatory provisions for inert Construction & Demolition (C&D) landfills. The remainder of the borrow pit (that portion without waste fill) will not have any cover placed over it. There are no plans to revegetate this area; naturally-occurring vegetation is expected to slowly colonize the site. Though the pit will be lower than the surrounding landscape, there will still be some potential for dust generation and soil erosion.

The prevailing wind direction at Benton Crossing Landfill is from the southwest, based on several years of wind data collected at Mammoth-Yosemite Airport, located approximately 4.6 miles southwest of the landfill (RDSI, p. 14). Winds are calm (less than 11 miles per hour) approximately 79 percent of the 24-hour day. Winds tend to pick up in the afternoon. The potential for dust and wind erosion of on-site soils during construction, during the life of the landfill, and during the postclosure period is considered to be a potentially significant effect of the project. The SDEIR proposes mitigation measures to reduce these potential impacts to a less than significant level.

The potential erosion and sedimentation effects of storm water runoff are discussed in the section on water resources.

Seismic Impacts. The site and the proposed expansion areas are not within an Alquist-Priolo Fault Hazard Zone; the nearest fault is approximately 3 miles to the southwest. The final grading plan for Benton Crossing Landfill has been designed to ensure the stability of the slopes on-site. The Preliminary Closure and Postclosure Maintenance Plan (PCPMP) for Benton Crossing Landfill notes that:

Landfill sideslopes have been designed with an overall slope of 3H:1V (horizontal to vertical), while the top surface of the landfill has been designed as a series of ridges and swales with surface slopes of approximately five percent graded toward collection channels constructed with a flowline of three percent. (PCPMP, p. 4)

In accordance with 27 CCR Section 221750 (f), a slope stability analysis of the final cover layer was performed using the XSTABL computer software. This analysis indicated the proposed final cover system is stable of 3H:1V sideslopes, with a static factor of safety of 1.9 and a pseudostatic factor of safety under seismic loading of 1.5. The details of this analysis are included in the Slope Stability Analysis in Appendix D (of the PCPMP). (PCPMP, p. 5-6)

All structures will be removed from the landfill site during the closure period except for the perimeter fencing and access gates. The existing and final perimeter fencing (4-strand barbed-wire) surrounds the waste footprint and all on-site detention basins except the easternmost basin. Once the postclosure maintenance period has expired, public access to the site may be allowed in accordance with the PCPMP, if it is approved by applicable regulatory agencies.

The operation and expansion of Benton Crossing Landfill will not result in additional seismic hazards to people or structures. Supplemental analysis is not required.

Conclusion: Potentially significant impacts will be present with regard to soil erosion; mitigation measures are required to reduce impacts to less than significant levels.

Geology and Soils Mitigation Measures

- GS-1 Construction activities on-site shall comply with all Mono County standards and best management practices for erosion control, including the following:
- a. Covering disturbed soils with wood chips until construction is complete.

- b. Controlling exotic weed species.
- c. Project phasing to minimize exposed or excavated areas.
- d. Sprinkling/watering of disturbed soils, particularly in high use areas. A water truck shall be present on-site during construction activities.
- e. Using wind erosion construction barriers on sites exposed to wind erosion during initial excavation.
- f. Covering, windfencing around, or wetting of stockpiled earth materials.
- g. Limiting the speed of construction equipment, trucks and other vehicles to 15 miles per hour on the site.

Geology and Soils Mitigation Monitoring

See mitigation monitoring plan in final EIR.

VEGETATION AND WILDLIFE

Vegetation Survey Methodology. The following information on vegetation is summarized from the Botanical Survey of Proposed Benton Crossing Landfill and Pumice Valley Landfill Expansion Areas, Mono County, California by Mark Bagley (2002). The complete report is contained in Appendix A. A list of plant species of concern with the potential to occur in the survey area was prepared using data from the California Natural Diversity Data Base (CNDDB 2001), the California Native Plant Society (CNPS 2001), information from discussions with Bishop Bureau of Land Management (BLM) Botanist Anna Halford, and information from Mr. Bagley's personal files. Field surveys were conducted on July 28, August 8, 13, 20, and 28, 2001 by Mark Bagley and Stephen Ingram. Surveys were conducted on all areas being considered for expansion at that time (see Figure 3); the proposed expansion area to the east of the landfill was not surveyed. Surveys were conducted by systematically walking parallel transects over the survey areas. Transects were spaced 27.5 to 55 feet apart with the more intensive spacing occurring where species of concern populations were found to occur. Refuse areas were not systematically surveyed. The perimeter of the refuse areas were walked and some meandering transects were walked over part of the areas. All plant species encountered in the study area were identified to at least a genus level and to the level necessary to ensure they were not plant species of concern. The report in Appendix A contains a list of all plant species observed on-site.

Vegetation and Habitat Types. The vegetation community occurring in the Benton Crossing Landfill expansion survey area is Big sagebrush scrub, a vegetation community that is widely distributed throughout the Eastern Sierra and the Great Basin (see Figure 4). It is an open, shrub-dominated type, dominated by Great Basin or big sagebrush (*Artemisia tridentata*), typically with bare ground under and around the shrubs. The majority of the survey area consists of a low diversity big sagebrush scrub, very strongly dominated by big sagebrush, with scattered antelope bitterbrush (*Purshia tridentata*) and very little or no understory. To the west and south of the existing landfill, the big sagebrush scrub is generally a little more diverse than it is to the north, with an increase in the associated shrub and understory species. The big sagebrush are about 1-1.5 meters tall throughout the survey area, although they are about 2-2.5 meters tall forming a very dense cover with little or no understory or associated species, in the large draw in the northeast and in a swale on the south side of the landfill.

Southwestern portions of the survey site extend down nearly to the base of a steep slope adjacent to the wetland alkali flats just north of Big Alkali Lake (see Figure 2). This is a transitional

vegetation area with species present that indicate increased soil moisture and the transition of the vegetation toward the alkali meadow type that occurs further west of the survey area.

Disturbed and cleared habitats occur adjacent to the north and southwest portion of the existing landfill (see Figure 4). These areas have been cleared in the past and are now sparsely covered with big sagebrush, rubber rabbitbrush (*Chrysothamnus nauseosus*), curl leaf rabbitbrush (*Chrysothamnus viscidiflorus*), and a variety of herbs. Two areas adjacent to the disturbed/cleared areas have also been cleared and are largely covered by refuse dumped on the sites. These are designated as "refuse areas" on Figure 4. Plants in these areas are primarily big sagebrush and rubber rabbitbrush.

No sensitive or specially protected vegetation types occur in the Benton Crossing Landfill expansion survey area.

Plant Species of Concern. Two plant species of concern were found to occur in the Benton Crossing Landfill expansion survey area. Long Valley milk-vetch (*Astragalus johannis-howellii*) and what appears to be Masonic rock cress (*Arabis cobrensis*) were found to occur mainly in the western and southern portions of the survey area, generally in areas with the slightly more diverse big sagebrush scrub.

Long Valley milk-vetch is endemic to Mono County and is state-listed as rare. A total of 530 individuals were observed in the survey area, all but one to the west and south of the existing landfill (see Figure 5). All but 3 individual plants occurred in the open, between the shrub canopies. Even though nearly all were dormant, the Long Valley milk-vetch were relatively easy to observe in the open understory of the sagebrush scrub.

Masonic rock cress is not state or federally-listed, but is considered by the California Native Plant Society as rare, threatened, or endangered in California but more common elsewhere out of state. Identification of this species needs confirmation because specimens observed in 2001 were dry, with few leaves, and only open fruit with no seeds. A total of 131 individuals were counted in the survey area. However, in one area where the species was observed individual plants were not counted. Nearly all the Masonic rock cress was observed growing up through shrub canopies; because of this and the fact that the plants were dormant and dry at the time of the survey, it appears likely that the species was under-counted. Masonic rock cress was found to occur primarily west and south of the existing landfill, in areas that also support Long Valley milk-vetch (see Figure 6).

Vegetation Impacts. No sensitive or specially protected vegetation types occur in the Benton Crossing Landfill expansion survey area. Big sagebrush scrub is not a sensitive habitat type and is common and widespread throughout the Eastern Sierra; impacts to this community are not considered potentially significant. The proposed expansion areas are located to the north and east of the existing landfill and will therefore avoid any potential impacts to the wetland alkali flats just north of Big Alkali Lake.

Two plant species of concern were found to occur in the Benton Crossing Landfill expansion survey area, primarily to the west and south of the existing landfill area. Long Valley milk-vetch is endemic to Mono County and is state-listed as rare. Masonic rock cress is not state or federally listed, but is listed by the California Native Plant Society on List 2: plants rare, threatened, or endangered in California, but more common elsewhere. There are few confirmed records of this species in California and it may be more widespread than is known due to lack of searching for it (Bagley, p. 14).

SEE FIGURE 3

Location of the Benton Crossing Landfill Expansion Vegetation Survey Area

SEE FIGURE 4

**Vegetation and Habitat Types, Benton Crossing Landfill Expansion
Vegetation Survey Area**

SEE FIGURE 5

**Distribution and Abundance of Long Valley Milk-Vetch, Benton Crossing
Landfill Expansion Vegetation Survey Area**

SEE FIGURE 6

**Distribution and Abundance of Masonic Rock Cress, Benton Crossing Landfill
Expansion Vegetation Survey Area**

If expansion were to occur to the west or south, there would be significant impacts to rare plant species. In response to the results of the Botanical Survey, Mono County designed the expansion at Benton Crossing Landfill to avoid impacts to rare plant species. Expansion will occur to the north and east of the existing landfill. A couple of isolated individuals of Long Valley milk-vetch and Masonic rock cress would be impacted but there would not be a substantial impact on the species. The expansion of Benton Crossing Landfill will not result in significant impacts to rare plant species.

The proposed eastern expansion area was not surveyed during the Botanical Survey. However, it is currently disturbed by Pit Road and existing monitoring wells. Proposed uses for the eastern expansion area include the installation and maintenance of additional monitoring wells, drainage facilities, and a storm water detention basin. The monitoring wells will be installed during the closure construction phase and will be situated along the eastern perimeter of the area, in an area that is currently bladed regularly to maintain a fire break. Due to the less intense uses proposed for this area and the existing disturbed condition of the land, it is not anticipated that significant impacts will occur to vegetation as a result of the eastern expansion of the boundaries. However, mitigation measures proposed for the project require the County to have a botanist survey the eastern expansion area prior to any additional construction/installation activities in that area to ensure that the location of proposed landfill facilities will not impact sensitive plant species. If sensitive plant species are encountered during that survey, the project will be redesigned to avoid those species and identified populations will be protected during construction.

During the initial comment period for the SDEIR, two issues related to vegetation were raised. One concern focused on whether the existing perennial garden in the area is in the proposed expansion area. The garden is approximately 100 feet south of the landfill's southeast property corner and will not be affected by the proposed boundary expansion.

A second concern focused on the potential invasion of noxious weeds resulting from the proposed clearing (i.e., use of the northern expansion area primarily as a soil borrow pit). The Botanical Survey for Benton Crossing Landfill notes that the majority of the northern expansion area is already disturbed/cleared and is now sparsely covered with big sagebrush, rubber rabbitbrush, and curl leaf rabbitbrush (see Figure 2). Aerial photos of the site show that there was an isolated brush fire to the north in the past—the clearing noted by Bagley may be the fire area. The disturbed areas also contain more herbs than surrounding undisturbed habitat, including lupine, Russian thistle, thorny skeleton plant, Bailey buckwheat, cryptantha, Nuttall tiqulia, and tansy-mustard. Areas adjacent to the disturbed/cleared areas have also been cleared of native vegetation and are largely covered with old refuse consisting of large tree stumps, broken asphalt and concrete, and boulders (see Figure 2). Big sagebrush and rubber rabbitbrush are the principal plants occurring in these areas.

As these disturbed areas are utilized as a soil borrow pit, any vegetation will be removed. The final design for the soil borrow area is a pit sloping to the east. There are currently some old piles of concrete, asphalt, boulders and tree stumps (classified as "inert debris") sitting on the ground north of Owens River Road. As the County excavates the new borrow pit, the western-most portion of the site will be backfilled with the inert debris. That material will then be covered with soil only, consistent with the regulatory provisions for inert Construction & Demolition (C&D) landfills. The remainder of the borrow pit (that portion without waste fill) will not have any cover placed over it. The majority of the borrow pit (roughly 240,000 cubic yards of material) will be excavated at the end of the landfill life, when soil will be needed for the final cover of the landfill area. Mitigation measures proposed for the project require the borrow pit to be revegetated with a native seed mix during the closure construction phase of the project.

Final cover for the landfill will include several layers of soil and a geosynthetic clay liner overlaid with 3 to 6 inches of wood chips to protect the final cover from the effects of wind and water erosion and rain drop impact. Noxious weeds are not expected to have a significant environmental impact since the area specified as a soil borrow pit will be cleared incrementally, not all at once and any stockpiled soil will be covered to prevent the germination of weeds. In addition, the final cover for the landfill will smother any weeds. Mitigation measures proposed for the project also require the landfill to be revegetated with a native seed mix during the closure construction phase of the project.

Wildlife Survey Methodology. The following information on wildlife is summarized from the Wildlife Surveys, Mono County Landfill Expansion Sites by JBR Environmental Consultants, Inc. (2001). The complete report is contained in Appendix A. A list of sensitive wildlife species with the potential to occur in the survey area was compiled utilizing information from the California Natural Diversity Data Base (CNDDB), the California Department of Fish and Game (DFG), and the US Forest Service (USFS). Field surveys were conducted by a JBR biologist on October 25 and 26, 2001. The biologist established and walked a series of transects observing and noting wildlife and wildlife sign encountered during the survey (see Figure 7). Survey efforts were concentrated on the undisturbed habitats surrounding the site, but habitats within the landfill were also assessed. Prior to the site visits, conversations with Tim Taylor, Wildlife Biologist with the DFG for Mono County, had indicated that mule deer would probably make use of the site to some degree. Deer signs, including tracks and pellets, were noted. The number and location of fresh pellet groups were noted.

Mule Deer. Mule deer (*Odocoileus hemionus*) from the Casa Diablo deer herd pass through Long Valley during the spring and summer migration periods when the herd moves between its summer range in the Sierra Nevada and wintering areas to the east. The areas along the base of the Sierra Nevada, along the Glass Mountains, and around Hot Creek are used most heavily; those areas are identified as Intensive Use Areas by the BLM (Mono County MEA, Figure 20). The area south and east of Benton Crossing Road, surrounding Lake Crowley, is identified as a Light Use Area (Mono County MEA, Figure 20). The remainder of the Long Valley area, including the area where the landfill is located, is identified as a Dispersed Use Area (Mono County MEA, Figure 20). Additional data from the MEA indicate that the deer pass to the southeast of the landfill when moving between the Glass Mountains and the Hot Creek area and that the landfill is not within or adjacent to critical summer range, critical winter range, or critical holding area habitat (Mono County MEA, Figure 32J). While the deer utilize all of Long Valley, the landfill area is not anticipated to be a heavy use area. Tim Taylor, DFG wildlife biologist for Mono County, expected limited deer use of the Benton Crossing landfill area because of the generally low vegetation that offers less cover for the deer (JBR, p. 9).

Much of the sagebrush scrub surrounding the landfill is only approximately three feet tall. Swales and other low areas support taller vegetation (approximately 5-6 feet tall). Fairly heavy deer sign, in the form of both tracks and pellet groups, was noted in areas of taller vegetation in the northern portion of the survey area. Few tracks or pellet groups were found in the more open habitat and lower vegetation west and southwest of the existing landfill. Some bitterbrush plants near the landfill also showed signs of hedging. Bitterbrush was not common to the south or west of the existing landfill but plants in this area were heavily hedged. Hedging indicates overuse by browsers and can be caused by deer or cattle. Cattle graze the area during the summer season and tracks were noted in the area during the October surveys.

SEE FIGURE 7

Wildlife Survey Boundaries, Benton Crossing Landfill Expansion Area

Game Birds. Sage-grouse (*centrocercus urophasianus*) utilize the Long Valley area year-round for mating, nesting, and rearing their young. The following information on sage-grouse in Long Valley is taken from the Greater Sage-Grouse Conservation Plan for Nevada and Eastern California, Sage-Grouse Conservation Team, 2004. Sage-grouse utilize different habitats at different times of the year. During the early spring when they are breeding, they congregate near lek sites (strutting grounds). There are 14 strutting grounds identified in the Long Valley breeding complex; a total of 6 are dependable, long-term leks. Sage-grouse in Long Valley nest in close proximity to known leks. Radio-telemetry studies of grouse in Long Valley have identified their seasonal habitat use throughout the year. Meadows and streamside habitats are utilized heavily during the nesting and brood rearing period. Some of the areas identified as being particularly important habitat during the spring (March 15th to June 15th) breeding and nesting period include:

- the area northwest of Crowley Lake and South of Benton Crossing Road;
- the area northwest of Benton Crossing Road between Whitmore Hot Springs and Alkali Lake;
- the north end of Hot Creek downstream of Hot Creek Gorge;
- both north and south of Little Hot Creek;
- the south slope and foot of Bald Mountain down in to the north end of Long Valley especially between Clark Canyon and McLaughlin Creek; and
- the Watterson Canyon area south and east of lek 10A.

Areas identified as high use areas during the late brood rearing and summer period (June 16th to August 31st) include:

- north of US 395 between Mammoth Airport and the fish hatchery and west of the hatchery to Mammoth Creek;
- south of US 395 and west of Laurel Lake;
- between Whitmore Hot Springs and Alkali Lakes northwest of Benton Crossing Road;
- south of lek 5;
- north, east and west of lek 1;
- west and southwest of lek 2;
- Owens River 3 km upstream from confluence with Little Hot Creek at power lines; and
- north and south of Convict Creek.

During the late fall and winter, sage-grouse subsist almost entirely on sagebrush. The following areas were used extensively by radio-marked grouse over the fall and winter periods:

- near Benton Crossing Road, north of lek 2 and east and west of leks 3 and 3A;
- between lek 4 and 4A, north of Benton Crossing Road;
- between Whitmore Hot Spring and Alkali Lakes;
- north of Little Hot Creek about 4km west of the confluence with the Owens River;
- the Owens river area about 4km linear upstream of confluence with Little Hot Creek (near power lines);

- southeast of O'Harrel Creek;
- Hot Creek downstream of Hot Creek Gorge;
- between the Mono Airport and Hatchery north of US 395; and,
- east of Laurel Ponds south of US 395.

In the wildlife survey conducted for the project, a single sage-grouse pellet group was noted in the northwestern portion of the survey area. The number of droppings in sage-grouse pellet groups left by roosting birds is a function of night length. This group contained 16 pellets, suggesting it was a "summer group". A single smaller game bird pellet group found in this area was probably left by a California quail. Mourning doves can be expected to occur in the area during the warmer times of the year and may nest in the area.

The long term sage-grouse breeding population trend in Long Valley from 1973 to the present is assessed in the Greater Sage-Grouse Conservation Plan for Nevada and Eastern California. Results of that assessment reveal several distinct changes in spring population that appear related to changes associated with fall sage-grouse hunting regulations in Mono County – when fall hunting is limited, the spring population is larger. Since 1993, the population appears to be stable and slightly increasing (Greater Sage Grouse Conservation Plan, Figure 8-7).

Raptors. Raptor species that could potentially occur in the general area include northern harriers, red-tailed hawks, and American kestrels. The area could also provide wintering habitat for rough-legged hawks, bald eagles, and golden eagles. The presence of water nearby at Crowley Lake could be expected to attract wintering bald eagles. The sagebrush shrubland prevalent throughout Long Valley could represent potential foraging habitat for raptors. The cleared area of the landfill could also provide potential burrowing owl habitat but the active disturbance on site would dissuade burrowing owl use of the site.

No raptors were observed in or near the landfill during the October, 2001, baseline surveys. No whitewash or stick nests were noted on a small outcrop located to the west of the alkali meadow west of the landfill.

Small Game and Non-Game Species. Small game and non-game species that could be expected to occur in the area include a variety of birds and small mammals. Due in part to the timing of the surveys, few non-game species were observed in the survey area. The tracks of coyotes and fox (probably kit fox), as well as black-tailed jackrabbits and cottontail rabbits, were found in the area.

Birds observed in the area included numerous common ravens and California gulls in the vicinity of the landfill. The area west of the existing landfill was heavily tracked by ravens and ravens were observed congregating in the alkali meadow west of the landfill. California gulls appeared to be traveling between the landfill and Crowley Lake. Brewer's blackbirds and European starlings were observed in and near the landfill. Horned larks were observed on the ground of the existing landfill and in surrounding undisturbed habitats. The western meadowlark and Brewer's sparrow can be expected to nest in the big sagebrush-bitterbrush habitat found in the project area. Winter residents can be expected to include the dark-eyed junco and white-crowned sparrow.

Reptiles. Small reptiles common to sagebrush scrub could be expected to occur in the area. No reptiles were observed during the October, 2001, survey.

Special Status Wildlife Species. The following special status wildlife species could occur in the area: bald eagle, sage-grouse, bats, pygmy rabbits, burrowing owls, bank swallows, Owen's tui chub, Owen's speckled dace, Owens's sucker, Lahontan cutthroat trout.

The bald eagle, a federally-listed threatened species, may utilize the area as winter foraging habitat.

California Natural Diversity Data Base (CNDDDB) records indicate that a sage-grouse strutting ground (lek) is located approximately 4.5 miles south of the landfill, near Crowley Lake. Sage-grouse display and mate on these leks during the spring then nest under shrub cover often within 2 miles of the lek. Meadow and streamside habitats are important brood rearing habitats. During the winter, sage-grouse subsist almost entirely on sagebrush. Tim Taylor and Denise Racine of the DFG both noted that other sage-grouse leks are located near Crowley Lake.

A small outcrop noted west of the alkali meadow west of the landfill, along with a collection of stumps in the northern portion of the landfill, could provide roosting habitat for small numbers of bats.

The landfill area was searched for evidence of pygmy rabbits. No trails, burrows, or small pellets were found in the area.

No evidence of burrowing owls was noted in the vegetated areas surrounding the landfill. Intensive use of the cleared areas within the landfill would be expected to dissuade burrowing owl use of cleared ground within the active landfill.

Bank swallows nest near Crowley Lake, within approximately 4 miles of the landfill. No areas of vertical bank suitable for nesting were found in or near the survey area.

Three sensitive fish species occur in drainages that pass near the Benton Crossing Landfill. The Owen's tui chub has been reported in Hot Creek and Little Hot Creek within one mile of the Benton Crossing landfill. The Owen's speckled dace and Owen's sucker has been reported in the Hot Creek and Little Hot Creek drainages as well as in the Owen's River. The Owen's speckled dace has also been recorded above Little Alkali Lake within approximately 1.5 miles of the landfill. The Owen's sucker also occurs in Crowley Lake and has been recorded approximately 1.5 miles from the landfill site.

Lahontan cutthroat trout are reported in O'Harrel Canyon Creek, north of the Owens River and approximately 3.5 miles north of the landfill.

The CNDDDB also reports the travertine band-thigh diving beetle occurs in a section of highly mineralized water in the outflow stream below Big and Little Alkali lakes, approximately one mile south of the survey area.

Wildlife Impacts. Several issues concerning wildlife were raised during the initial comment period for the SDEIR, i.e.:

- Potential impacts to mule deer
 - ◆ Need deer surveys to adequately address the amount, timing, and specific locations of summer use, fawning habitat, and transition range on-site
 - ◆ Impacts on deer migration corridors; fences must provide access for deer
 - ◆ Direct mortality impacts from additional landfill-related traffic

- Potential impacts to sage-grouse
 - ◆ Predation from ravens and other sage-grouse predators a major concern
 - ◆ Litter fencing--potential use as perches
 - ◆ Litter fencing--direct mortality from grouse flying into it in low light
 - ◆ Standing water--West Nile virus--grouse very susceptible to it
 - ◆ Loose load litter issues--litter attracts predators to area
 - ◆ Direct mortality impacts from additional landfill-related traffic
 - ◆ Increased use of the area by scavengers (foxes, coyotes, etc.)
 - ◆ Bird harassment program--evaluate different methods, population monitoring for gulls and ravens, explore and identify different methods
 - ◆ Concerns that the bird cannon will disturb wildlife in the area
 - ◆ Concerns that land clearing and operational activities at certain times of the year would impact sage-grouse

Impacts to Mule Deer. Mule deer are important harvest species in California. As noted in the Mono County MEA, the landfill is not in an intensive deer use area (MEA Figures 20, 32J). As noted in the Wildlife Survey prepared for the project, Tim Taylor, DFG Associate Wildlife Biologist for Mono County, expects limited deer use of the Benton Crossing landfill area because of the generally low vegetation that offers less cover for the deer. The wildlife survey does note that "areas of taller big sagebrush and antelope bitterbrush habitat north of the existing landfill showed evidence of fairly heavy deer use". The Botanical Survey for the project notes that "...in the large draw in the northeast ... the sagebrush are about 2-2.5 m tall, forming a very dense cover with almost no understory or associated shrubs."

The proposed expansion area to the north of the existing landfill is 35 acres in size. The large draw to the northeast, where the taller sagebrush is located, encompasses approximately 9 acres. The area to the north of the existing landfill will be used as a soil borrow pit with the majority of the soil not being removed until the end of the landfill's life when the soil will be needed for final cover. The landfill will eventually be returned to open space uses and the entire 145 acres within the existing and proposed landfill boundaries will be available for use as wildlife habitat. The eventual loss, over a 20-year period, of 9 acres of potential deer habitat located outside of identified intensive deer use areas will not create a significant impact to mule deer.

Proposed landfill operations and expansion will not create impacts to deer movement. There is currently a four-strand barbed wire fence surrounding the perimeter of the waste disposal area. This existing fence will remain in the same position throughout the remaining 20 years of the landfill's active life and through the 30-year postclosure maintenance period.

A 40-foot tall net-type fence is being considered for litter control along the eastern boundary of the waste disposal area along the existing fence line. The landfill is an existing use that has been in place for at least 31 years. There will be no new fences around the proposed expansion areas to affect wildlife movement.

There is some concern that additional landfill-related traffic along US 395 and Benton Crossing Road could increase the risk of wildlife/vehicle collisions. Existing traffic volumes at the landfill are low and are expected to remain low throughout the life of the landfill (see Circulation section). The landfill operates only during daylight hours, from 8 am to 4 pm on weekdays and 8 am to 12 pm on weekends in the winter (October 1-April 30), and from 8:30 am to 4:30 pm on weekdays and 8:30 am to 12:30 pm on weekends in the summer (May 1-September 30). Traffic counts performed at the landfill between May, 2001, and October, 2003, indicate that the peak

hour for traffic on summer weekdays is 2 pm to 3 pm and the peak hour on winter weekdays is 1 pm to 2 pm (RDSI, p. 37). Speed limits on Benton Crossing Road are 55 mph and are posted at several locations along Benton Crossing Road from its junction with US 395 to the Owens River. Speed limits on Pit Road are not posted. Proposed mitigation measures in this SDEIR limit speeds on Pit Road to 25 mph and require speed limit signs to be posted on Pit Road. Potential impacts to wildlife from landfill-related traffic will not be significant.

Impacts to Sage-grouse. Sage-grouse are considered to be special-status species. In the California Natural Diversity Database (CNDDB), greater sage-grouse (*centrocercus urophasianus*) are listed as follows:

G4S3	G4 = apparently secure throughout its global range although some factors exist to cause some concern such as narrow habitat or continuing threats. S3 = Restricted range, rare in California.
Audubon WatchList	WatchList species are those facing population declines and/or threats such as habitat loss on their breeding and wintering grounds, or with limited geographic ranges. The WatchList is a science-based system that focuses attention on at-risk bird species so that limited resources are spent where they are most needed.
BLM Sensitive	Bureau of Land Management sensitive species are those that are 1) under status review by the FWS/NMFS; or 2) whose numbers are declining so rapidly that Federal listing may become necessary; or 3) with typically small and widely dispersed populations; or 4) those inhabiting ecological refugia or other specialized or unique habitats. In California, two additional conditions must be met; 1) a significant population of the species must occur on BLM-administered lands, and 2) the potential must exist for improvement of the species' condition through BLM management. It is BLM policy to provide sensitive species with the same level of protection that is given federal candidate species.
DFG-CSC	Listed by the California Department of Fish and Game as a California Special Concern species. Species are designated as CSC because declining populations levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. DFG's goal is to halt their decline by calling attention to their plight and addressing the issues of concern early enough to secure their longterm viability.
FS Sensitive	The US Forest Service defines sensitive species as those plant and animal species identified by a regional forester for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

The Greater Sage-Grouse Conservation Plan for Nevada and Eastern California identifies several existing and potential risks to sage-grouse conservation, among them the following potentially applicable to the project:

- Landfill operations;
- Predation;
- Fences and transmission lines;
- Succession--habitat degradation;
- Cheatgrass/invasive exotic plants; and
- Road kill hazards.

Landfill operations are a concern because they encompass several risk factors associated with sage-grouse mortality, i.e., impacts from predation and fences, habitat degradation, and road kill hazards.

Predation is often considered to be a major limiting factor on sage-grouse, although there is little published information that supports that hypothesis (Connelly, et al.). Studies of the effects of predation on sage-grouse suggest that other factors affect the severity of predation impacts on sage-grouse populations, i.e., habitat condition for nesting and brood rearing, climatic conditions, and the availability of other prey. The following excerpts from the Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitats and the Greater Sage-Grouse Conservation Plan for Nevada and Eastern California discuss sage-grouse predation.

Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats, Connelly et al. Predation, Parasites and Pathogens 10 -2

As with most species of game birds, sage-grouse have many predators. Throughout most of the species' range, coyotes (*Canis latrans*), badgers (*Taxidea taxus*), bobcats (*Felis rufus*) and several species of raptors are common predators of juvenile and adult sage-grouse (Patterson 1952, Schroeder et al. 1999, Schroeder and Baydack 2001). Additionally, coyotes, badgers, ground squirrels (*Spermophilus* spp.), common ravens (*Corvus corax*), and magpies (*Pica pica*) commonly prey on sage-grouse eggs (Patterson 1952, Schroeder et al. 1999, Schroeder and Baydack 2001). Many additional predators can kill and consume younger birds including the common raven, northern harrier (*Circus cyaneus*), and weasel (*Mustella* spp.) (Schroeder et al. 1999). The abundance of red fox (*Vulpes vulpes*) and raccoon (*Procyon lotor*) may have substantially increased in sage-grouse habitats because of landscape changes (Fichter and Williams 1967, Bunnell 2000, Connelly et al. 2000a).

Although there is little published information supporting the notion that predation is a major limiting factor on sage-grouse (Connelly and Braun 1997, Connelly et al. 2000b, Schroeder and Baydack 2001), arguments continue to be made supporting predator control as an important management action (Wambolt et al. 2002). Two non-peer-reviewed studies (Batterson and Morse 1948, Autenrieth 1981) suggest that nest predation due to corvids may limit sage-grouse numbers.

More recently, numerous investigators have documented sage-grouse survival and nest success (Gregg 1991, Robertson 1991, Connelly et al. 1993, Gregg et al. 1994, Holloran 1999, Lyon 2000, Wik 2002). Only two of these studies (Gregg 1991, Gregg et al. 1994) indicated that predation was limiting sage-grouse populations by decreasing nest success, but both of these indicated that low nest success due to predation was ultimately related to poor nesting habitat. Most reported nest success rates are >40% (see chapter 3), suggesting that nest predation is not a widespread problem.

Additionally, relatively high survival of adult birds (Zablan et al. 2003) and recent results demonstrating that coyote control in an area of Wyoming failed to produce an effect on nesting success (Slater 2003), further reinforce the idea that predation is not a widespread factor acting to

depress sage-grouse populations. Thus, rigorous field studies using radio telemetry have generally failed to support these early findings. In order to understand the possible impacts of predators on sage-grouse, it is important to understand the dynamics and behavior of predator populations. There are no predators within the range of sage-grouse that depend on sage-grouse as their primary food source, many depend primarily on rodents and lagomorphs and feed on sage-grouse opportunistically (see Bump et al. 1947, Angelstam 1986, Marcström et al. 1988, and Myrberger 1988 for examples). Consequently, the dynamics of a predator population and its primary food source can have observable impacts on a grouse population (Schroeder and Baydack 2001). When the primary food source is relatively rare, then a predator may spend more time searching for food, and consequently may be more likely to encounter a grouse or its nest (Angelstam 1983).

Predation may influence the population dynamics of grouse by reducing nest success, survival of juveniles (especially during the first few weeks after hatch), and annual survival of breeding-aged birds. The low survival of sage-grouse in the Strawberry Valley of Utah has been attributed to an unusually high density of red foxes (Bunnell 2000). Nest success is extremely variable and differences in success have been attributed to variation in habitat and management strategy (Connelly et al. 1991, Gregg et al. 1994, Connelly et al. 2000b). Although sage-grouse may partly compensate for predation pressure on nests by renesting (Schroeder 1997), habitat insufficient quality and quantity often has been stated as an important goal for reducing the effects of predation (Connelly et al. 1991, 2000b). Survival of juveniles is clearly low, but is also difficult to accurately assess (Crawford et al. 2004). Unlike nesting habitat, management of brood-rearing habitat has focused on increasing the density and diversity of forbs (Klott and Lindzey 1990, Pyle and Crawford 1996, Sveum et al. 1998b), rather than improving vegetation to reduce predation (Edelmann et al. 1998). Although there have been many observations and recommendations concerning the importance of suitable habitat for reducing predation pressure on adults, detailed statistics have been difficult to obtain (Schroeder and Baydack 2001). The quantity, quality, and configuration of habitat clearly has the potential to impact predator behavior and dynamics (Chapters 4, 12). These considerations include, but are not limited to, escape cover at nests (Connelly et al. 1991, Gregg et al. 1994) and visibility at leks (Hartzler 1974).

In addition, several investigators have suggested that adequate feeding areas may minimize risk associated with increased travel and time spent in riskier habitats (Gregg et al. 1993, Fischer et al. 1996, Pyle and Crawford 1996). Landscape fragmentation, agricultural habitats, and human populations have the potential to increase predator populations, and hence, predation pressure on grouse populations as shown for corvids, domestic cats, and dogs (see Chapter 12). This potential for increased predation pressure in fragmented habitats is similar to what has been observed for grouse in Europe, where the pattern is well documented (Andrén et al. 1985, Andrén and Angelstam 1988, Bernard-Laurent and Magnani 1994, Kurki et al. 1997).

Although predator controls have been tried within the range of sage-grouse (Batterson and Morse [1948] removed many common ravens on an area in Oregon and there was a short-term increase in nest success), the cost effectiveness and long-term impacts of the removal on the behavior, genetics, and abundance of sage-grouse have not been examined (Schroeder and Baydack 2001). There also has been a more recent recognition of the broader financial and political cost to removing predators (Messmer et al. 1999). Because of these considerations, predator management for sage-grouse has generally been addressed with the "manipulation of habitat because it is believed to be the most economical, efficient, and viable long-term strategy to enhance populations" (Schroeder and Baydack 2001:28).

Greater Sage-Grouse Conservation Plan for Nevada and Eastern California

2.5.8 Predation

Predation is the most important proximate cause of sage-grouse mortality (Braun 1975, Bergerud 1988a, Autenrieth 1986, Schroeder et al. 1999); almost every sage-grouse will eventually be eaten. Sage-grouse are known to be included in the diet of a variety of species. Sage-grouse eggs, new-born chicks, and juvenile birds have a greater number of predators and are more vulnerable to predators than are adult birds. The differential adult sex ratio also indicates that males have higher mortality than females (Schroeder et al. 1999). Survival between hatching and the end of summer varies from approximately 40 percent (June 1963) to 60 percent (Wallestad 1975).

Although a greater number of predators are known to prey on chicks, several factors lower the mortality rate at this life stage. After about six weeks of age, the chicks are able to take advantage of cover, detect predators, and escape by flying. As the birds increase in size and their ability to escape improves, a predator is more likely to take an individual juvenile sage-grouse, whereas a single predator is more likely to take an entire clutch of eggs or brood of newly hatched chicks that cannot yet escape by flight.

Sage-grouse are most vulnerable during the first few weeks after hatching. Insects and forbs are critical during this period and climatic conditions greatly influence the availability of these food items. In addition to lack of forage, heavy rainfall along with unseasonably cold temperatures during hatching may decrease production (Wallestad 1975). Stress due to lack of quality food items or from weather conditions also make the chick more vulnerable to predators.

On the other hand mortality rates for adult sage-grouse are generally considered to be relatively low when compared to other upland game birds (Connelly et al. 1993, Zablan 1993). Predation occurs throughout the year and what may seem like an obvious limiting factor on the population may only be part of a bigger issue. For example, beginning in the spring of 2000 NDOW contracted with US Department of Agriculture Aphis - Wildlife Services to conduct predator control within the Grassy-Stevens Camp area with emphasis on ravens. The Grassy-Stevens Camp area is approximately 50 miles north of the town of Gerlach, Nevada and is within the Washoe-Modoc Local Plan Area. Monitoring the effects of predator control on sage-grouse populations was conducted through analysis of wings collected during the general hunting season and from an application of a special sage-grouse hunt conducted within the Grassy Stevens Camp area (limited to 75 hunters).

Wings were analyzed to determine age, sex, nest success of females, and days since hatch of chicks. After three years of conducting this project within the Grassy-Stevens Camp area, sage-grouse production rates remained low and population levels showed a downward trend. Analysis of sage-grouse wings collected from harvest indicated that raven control increased sage-grouse nest success, but continued low recruitment suggested that other problems exist within this area. An alternative hypothesis to test is that poor habitat quality makes nests and chicks more vulnerable to predators. Predation of adult sage-grouse occurs, but overall survival of adult birds ranges from 55 to 67 percent for females and from 38 to 60 percent for males (Zablan 1993, Connelly et al. 1994, June 1963). Although there are several predators of adult sage-grouse, the relative impact of these predators on the population is less because the encounters may be less frequent during portions of the year and predators are less effective when preying on adults (Bean 1941, Beck 1977).

These excerpts suggest that a variety of factors affect the mortality of sage-grouse, that several factors may affect the grouse's vulnerability to predation, and that additional information is needed to clarify the impacts of predation on sage-grouse.

The Bi-State Area Greater Sage-Grouse Conservation Plan notes that "the range of size of predator populations can be expanded by human activities such as road and fence construction, landfills, and housing development." That plan also notes that additional data is needed to verify and further characterize the risk, including an evaluation of raven and gull populations associated with local landfills or refuse exchange centers.

Comments during the initial comment period for the project indicated that predation from ravens and other sage-grouse predators is a major concern for the Long Valley sage-grouse and that operations and expansion of Benton Crossing Landfill could affect predation in the area. One concern is that landfill operations attract predators to the area, primarily ravens and gulls, and that expansion of the landfill as well as ongoing landfill operations will attract more predatory birds.

Anecdotal information from landfill personnel indicates that the birds at Benton Crossing Landfill consist almost exclusively of gulls, ravens, crows, and magpies, all to varying degrees based on the season. The highest numbers of birds at the landfill are seen during the summer months. When the birds are at the landfill, they are either on the ground near the working face or perched on the heavy equipment. Landfill personnel have not seen raptors at the landfill. During the day, the birds on-site typically remain in the vicinity of the working face; they are not often seen in large numbers in any other part of the site. Landfill personnel do not recall seeing them perched on the perimeter fencing or the compound fence. Once the working face is closed for the day, the birds either migrate off-site or move to other parts of the site to roost for the night. The working face of the landfill is securely covered every evening so that scavengers cannot access the trash.

The landfill is an existing use that has been in place for at least 31 years. The proposed expansion will not expand the area of the active disposal area; there will not be more exposed trash at any one time to attract more birds. Existing and proposed operations are designed to minimize access to the working face by compacting and covering trash on a daily basis. This complies with one of the Initial Conservation Strategies in the Bi-State Area Greater Sage-Grouse Conservation Plan that says "Reduce raven and gull populations associated with local landfills or refuse exchange centers via prudent refuse management practices or propose to move refuse site." In addition, Benton Crossing Landfill has utilized a propane bird cannon to scare birds away from the site.

The operation of the landfill, although it utilizes prudent refuse management practices, physical exclusion control methods (i.e., daily cover), and acoustical control methods (i.e., bird cannon) to deter raven and gull use of the site, does attract birds. Proposed mitigation measures require the County to work with sage-grouse conservation organizations in Long Valley to minimize harm to sage grouse.

There are concerns that the proposed litter net could attract sage-grouse predators (i.e., ravens, sea gulls, raptors) to the landfill by providing perching sites on top of the support poles (see Figure 8, Prototype of Litter Fencing). A mitigation measure included in this SDEIR requires the County to top the poles with spikes specifically designed to prevent birds from perching on top of the poles. There is also a concern that sage-grouse and other birds may fly into the net in low-light conditions. Proposed mitigation measures require the County to work with sage-grouse conservation organizations in Long Valley to minimize harm to sage grouse.

There is a concern that standing water at the landfill could provide breeding grounds for mosquitoes that could affect sage-grouse populations. The Report of Disposal Site Information (RDSI) for the landfill notes that:

“proper surface grading to promote drainage and prevent ponding, as well as liquid waste disposal restrictions, minimize the presence of standing water and potential insect breeding areas. Potential breeding areas or conditions will be addressed when discovered.”

There is also some concern that the proposed detention basins for the 100-year storm could provide standing water for mosquito breeding that could impact sage-grouse populations. Due to the porous nature of the soils in the area, any standing water would quickly percolate into the surface. The final grading plan for the landfill is also designed to promote drainage and eliminate standing water. Landfill operations and the proposed expansion of those operations will not create impacts to sage-grouse populations from standing water.

There is a concern that expansion of the landfill will create increased use of the area by scavengers (foxes, coyotes, etc.) and that increased numbers of predators will affect sage-grouse populations in the area. Coyote and fox tracks were found in the area during the wildlife field surveys performed on-site. The proposed boundary expansion will not attract more scavengers since the expansion areas will not contain any refuse. In addition, the expansion of the landfill area is a vertical expansion, not a lateral expansion. The active disposal area of the landfill will not expand beyond its current size over the 20-year remaining lifespan of the landfill. The Report of Disposal Site Information (RDSI) for Benton Crossing Landfill addresses vector control at the landfill:

4.13.5 Vectors

Mono County employs several operational procedures designed to control vector generation and propagation at the landfill. Waste at the active face is compacted on a daily basis and covered with either an approved alternative cover or six inches of earthen material. Daily cover reduces vector access into, and harborage in, the waste mass. The application of cover soil also eliminates food sources and nesting areas. Dead animals are covered at the end of the day they were received to prevent the attraction and propagation of insects. In addition, proper surface grading to promote drainage and prevent ponding, as well as liquid waste disposal restrictions, minimize the presence of standing water and potential insect breeding areas. Potential breeding areas or conditions will be addressed when discovered.

There is also a concern that uncovered loads will create litter and that litter will attract predators to the area. State Vehicle Code Section 23115 requires trash loads to be totally covered while traveling on state highways. Local cover ordinances are usually enacted to address covered loads on local roadways. Since the majority of trash loads being delivered to Benton Crossing Landfill must approach via US 395 they must be covered. Mitigation measures require the County to educate the public concerning cover requirements on state highways on an on-going basis.

As discussed in the section on mule deer impacts, there is some concern that additional landfill-related traffic along US 395 and Benton Crossing Road could increase the risk of wildlife/vehicle collisions. Existing traffic volumes at the landfill are low and are expected to remain low throughout the life of the landfill (see Circulation section). The landfill operates only during daylight hours, from 8 am to 4 pm on weekdays and 8 am to 12 pm on weekends in the winter (October 1-April 30), and from 8:30 am to 4:30 pm on weekdays and 8:30 am to 12:30 pm on weekends in the summer (May 1-September 30). Traffic counts performed at the landfill between May, 2001, and October, 2003, indicate that the peak hour for traffic on summer weekdays is 2

pm to 3 pm and the peak hour on winter weekdays is 1 pm to 2 pm (RDSI, p. 37). Speed limits on Benton Crossing Road are 55 mph and are posted at several locations along Benton Crossing Road from its junction with US 395 to the Owens River. Speed limits on Pit Road are not posted. Proposed mitigation measures in this SDEIR limit speeds on Pit Road to 25 mph and require speed limit signs to be posted on Pit Road. Potential impacts to wildlife from landfill-related traffic will not be significant.

The County has utilized a propane bird cannon to keep birds away from the landfill. The bird cannon rotates and fires randomly throughout the weekdays. There are some concerns about the noise level of the cannon and about reviewing alternative methods of bird control (filament wire above the landfill, tape of distressed bird calls).

Studies have revealed that if a bird cannon is fired at regular intervals and is not moved around, birds get used to the noise and are no longer deterred (Denyse Racine, DFG). If the cannons are fired sporadically and moved from place to place, they tend to be much more effective. Sophisticated and expensive technology exists that is extremely effective at deterring birds (Denyse Racine, DFG). For example, systems exist that can detect the presence of a flock of birds; once the flock is detected, the bird cannon is triggered, and the birds are sufficiently deterred. Mitigation measures proposed for this SDEIR require the bird cannon to be moved and to be fired randomly.

Finally, there are concerns that land clearing and operational activities at the landfill at certain times of the year may impact sage-grouse, particularly during their breeding and nesting periods. The landfill is an existing long-established operation; daily operational activities are ongoing and it is assumed that wildlife in the area are adapted to those noises. Daily operational activities at the landfill will not change in the future. In addition, all equipment on-site is equipped with noise attenuation devices to minimize potential noise impacts.

The proposed expansion areas will not be involved in daily operations. Short-term construction related impacts may occur in those areas when additional monitoring wells are constructed. In the northern expansion area, the majority of the fill dirt will be removed at the end of the landfill's life to be used as final cover. While it is unknown whether or how construction activities at the landfill may affect sage-grouse, proposed mitigation measures in this SDEIR require the County to restrict activities during sage-grouse breeding and nesting periods from March 15 through June 15. During those periods, no new construction may occur at the landfill.

Impacts to Special Status Species. Only one special status species, the bald eagle, a federally listed threatened species, may utilize the area as winter foraging habitat. Bald eagles are more common at higher elevations and are not typically found in the High Sierra (all information on bald eagles--California Department of Fish and Game, California Wildlife Habitat Relationships System, Bald Eagle, www.dfg.ca.gov/whdab/html/B113.html). For feeding, they require large bodies of water or free flowing rivers with abundant fish and adjacent snags or other perches. They typically eat fish but may also eat ice-bound water birds and occasionally small mammals. The areas proposed for expansion are already disturbed and are not likely to provide high quality foraging habitat for bald eagles. The project will not create significant impacts to bald eagles.

Eastern Expansion Area. The proposed eastern expansion area was not surveyed during the Wildlife Survey. However, it is currently disturbed by Pit Road and existing monitoring wells. Vegetation in the area is sparse and low and does not provide optimal wildlife habitat. Proposed uses for the eastern expansion area include the installation and maintenance of additional

monitoring wells, drainage facilities, and a storm water detention basin. Due to the less intense uses proposed for this area and the existing disturbed condition of the land, it is not anticipated that significant impacts will occur to wildlife as a result of the eastern expansion of the boundaries.

Conclusion: The project has been designed to avoid impacts to identified populations of special status plant species and to wildlife. The operation and expansion of Benton Crossing Landfill will create less than significant impacts to Vegetation or Wildlife; mitigation measures are proposed to further reduce potential impacts.

Vegetation and Wildlife Mitigation Measures

VW-1 Prior to the construction or installation of any additional landfill facilities in the eastern expansion area, the County shall have a botanist survey that area to ensure that the location of proposed landfill facilities will not impact sensitive plant species. If sensitive plant species are encountered during that survey, the project shall be redesigned to avoid those species and identified populations shall be protected during construction.

VW-2 The spread of weeds shall be deterred by covering stockpiled topsoil.

VW-3 The speed limit on Pit Road shall be limited to 25 mph. Within 6 months of the approval of this project, speed limit signs shall be posted on Pit Road at its junction with Benton Crossing Road and at the exit from the landfill.

VW-4 On an on-going basis, the Mono County Department of Public Works shall provide information to the public, to contractors, to public agencies, and to private trash haulers concerning state requirements for covered loads on state highways.

VW-5 Poles utilized for the proposed litter fencing shall be topped with spikes designed to prevent birds from perching on top of the poles.

VW-6 Mono County shall work closely with sage grouse conservation efforts in Long Valley to minimize harm to sage grouse populations.

VW-7 The bird cannon shall be moved around the landfill in a random pattern and shall be fired intermittently to maximize its effectiveness.



FIGURE 8
Prototype of Litter Fencing, Bass Hill Landfill, Lassen County

VW-8 The County shall restrict new construction activities during sage-grouse breeding and nesting periods from March 15 through June 15 annually

Vegetation and Wildlife Mitigation Monitoring

See mitigation monitoring plan in final EIR.

VISUAL RESOURCES

Visual Resource Setting. Benton Crossing Landfill is located in the western portion of Long Valley, a visually open area with long sight lines. Vegetation in surrounding areas is primarily low-lying sagebrush scrub. The landfill itself is situated on a terrace approximately 30 feet higher than the surrounding relatively flat basin geomorphology (RDSI, p. 13, also see Appendix B, Drawing 2, Existing Topography). Although the area is open and the landfill is slightly higher than the surrounding area, localized topography varies enough to provide some topographic screening of the landfill from various viewpoints.

Surrounding public lands managed by the Bureau of Land Management are designated as Class II-High in the BLM's Visual Resource Management classes. Class II permits visual contrast; management activity may be seen but must not attract attention. Changes in any of the basic elements (form, line, color, texture) caused by the activity must not be visible in the surrounding landscape. Surrounding public lands in Long Valley managed by the US Forest Service are generally designated Partial Retention (PR), a designation that allows management activities to repeat the form, line and color of the natural landscape and other changes to be made provided the visual impact is dominated by the natural landscape.

There are two designated scenic highways in the area. US 395 is a State-designated scenic highway and Benton Crossing Road is a County-designated scenic highway. The landfill is not visible from any direction on US 395 due to intervening hills. From Benton Crossing Road, the landfill is only visible from the westbound lane of Benton Crossing Road at points along the north shore of Crowley Lake and from one high point on the north-south section of Benton Crossing Road.

Existing structures and facilities at the landfill include the landfill access road and entrance gates, perimeter fencing (4-strand barbed wire), the scalehouse, a locker room and supply building, a work shop and tool shed, equipment storage areas, an emergency generator shed, hazardous materials storage buildings, landfill gas monitoring wells and vents, and groundwater monitoring wells (see Appendix B, Drawing 3, Existing Facilities Plan). Heavy equipment is also stored on-site (e.g., bulldozers, dump trucks, wood shredder). Proposed structures and facilities include an additional household hazardous waste storage building, litter fencing, additional landfill gas monitoring wells and vents, additional groundwater monitoring wells, drainage facilities, and storm water detention basins.

Visual Resource Impacts. The proposed design for the final landfill configuration consists of vertical fill over the existing waste footprint and does not proposed lateral expansion beyond the limits of the existing waste footprint. The approved 1995 closure plan has an average perimeter slope height of 16 feet and a peak fill height of 28 feet; the proposed design has an average perimeter slope height of 22 feet and a peak height of 41 feet above surrounding grades. The western slope of the landfill is essentially at final grade now. The approved capacity for Benton

Crossing Landfill is currently 1,105,217 cubic yards; the proposed design results in an estimated site capacity of 1,814,400 cubic yards.

Litter at the landfill impacts visual resources. Wind-blown litter is picked up by landfill personnel on a daily basis, typically in the morning before the afternoon winds pick up. A portable, semi-permanent five-foot high wire mesh fence is installed around the working face at the landfill to help control wind-blown litter. The fence is moved as necessary to encompass the downwind boundary of the active working face and to minimize the escape of wind-blown litter. The landfill expansion may also include the potential future installation of permanent litter fencing along the eastern boundary of the fill area to prevent the off-site migration of windblown litter. The permanent litter fencing would consist of a 40-foot tall wire net (see Figure 8, Prototype of Litter Fencing). The litter fencing would be a dull, dark color and would blend into the surrounding landscape. It would also be a short-term use that would be removed when the landfill is closed in 20 years.

Up close, the landfill as it currently is presents a disturbed visual appearance that does not blend in with the surrounding landscape. The landfill presents a "developed" appearance, with roads, structures, fencing, heavy equipment, and altered topography, that contrasts with the surrounding undeveloped landscape. The proposed expansion areas also present a disturbed appearance and appear already as extensions of the existing developed landfill site. Additional structures and facilities proposed for the landfill site (i.e., household hazardous waste structure, litter fencing, groundwater and gas monitoring wells, storm water detention basins) could contribute to the existing disturbed appearance. Mitigation measures are proposed that will reduce these impacts to a less than significant level.

Many of the visual impacts of the landfill are short-term impacts that will cease to be impacts once the site is cleared during the closure period. All structures will be removed from the landfill site during the closure period except for the perimeter fencing and access gates. The existing and final perimeter fencing (4-strand barbed-wire) that surrounds the waste footprint and all on-site detention basins except the easternmost basin will remain during the postclosure maintenance period. Once the postclosure maintenance period has expired, public access to the site may be allowed in accordance with the PCPMP, if it is approved by applicable regulatory agencies.

The long-term visual impacts of the landfill are related to the landfill itself. Two comments received during the initial comment period for the SDEIR focused on the long-term impacts to visual resources, i.e.:

- Existing diagrams and plans do not do enough to provide a clear visual image of what the completed landfill will look like (need photo simulations, accurate sections, "key viewpoints").
- ◆ Are proposed contours and shaping of landfill "naturalistic" enough or are they too square? Will the landfill look out of place against the surrounding landscape?



Western slope at approximate final grade with wood chip erosion control layer (view north)



Construction & demolition waste disposal area (view south)

FIGURE 9
Site Photos, Benton Crossing Landfill



View toward landfill from Benton Crossing Road at Big Alkali Lake (view north)

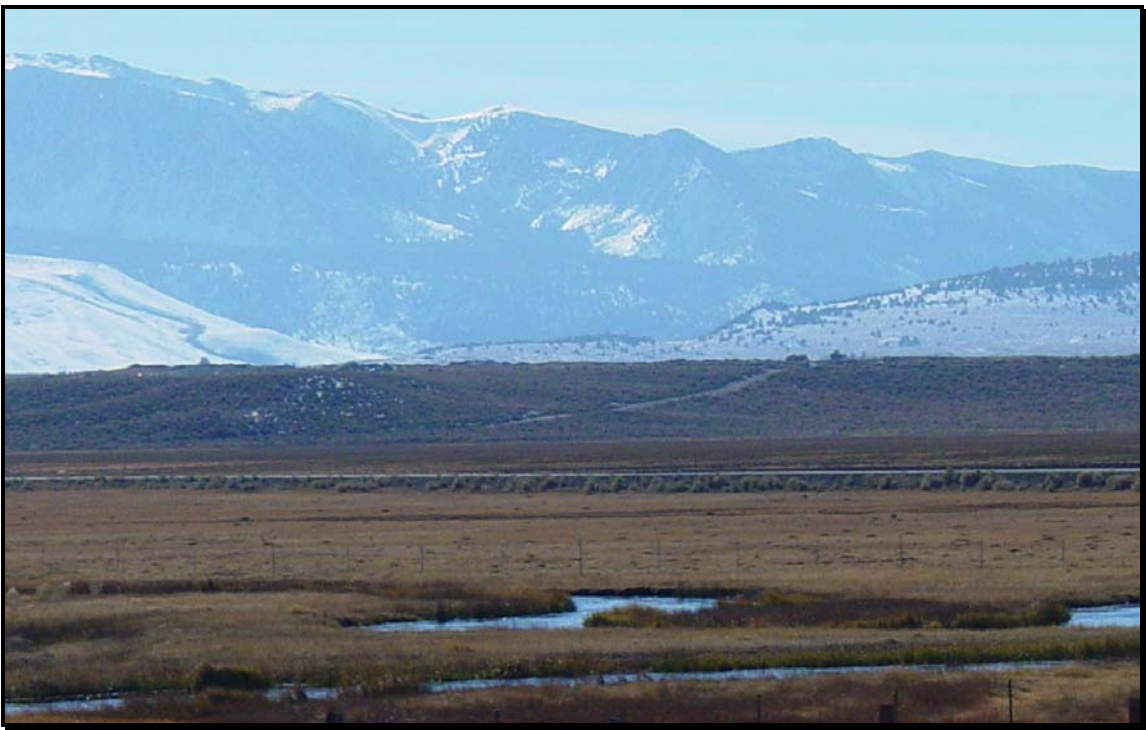


View toward landfill from Benton Crossing Road at Little Alkali Lake (view northeast)

FIGURE 9, continued
Site Photos, Benton Crossing Landfill



Landfill blocked from view, Owens River Road at Benton Crossing Road (view west)



Zoom view toward landfill from Benton Crossing Road, east of Owens River (view west)

FIGURE 9, continued
Site Photos, Benton Crossing Landfill

The Joint Technical Document (JTD) for Benton Crossing Landfill (i.e., the Report of Disposal Site Information and the Preliminary Closure and Postclosure Maintenance Plan) contains detailed figures and drawings showing existing topography, final grading, and cross-sections of the final grading. Appendix A of the JTD contains a reduced drawing set which is reproduced in Appendix B of this document; Appendices L and M of the JTD contain a full-size drawing set. These drawings provide an accurate assessment of what the landfill will look like when it is completed. The visual impact will be mitigated by covering the entire landfill area with wood chips. The wood chips will not only reduce erosion but will also lessen the visual impact of the landfill by helping it blend into the surrounding landscape. If the landfill were left with bare earth as a final cover it would stand out more in the surrounding landscape. Proposed mitigation measures also require the entire site to be revegetated with a native seed mix to further reduce potential visual impacts.

The final vertical landfill configuration will stand out from the surrounding relatively flat natural topography. The final design of the landfill is typical for the solid waste industry and is intended to achieve engineering objectives related to slope stability, drainage, and construction of the final cover as well as to maximize the area for waste disposal. The PCPMP notes that "it is estimated that the waste fill may settle as much as six feet during the 30-year postclosure maintenance period" (PCPMP, p. 4). As the waste mass settles over time it will look more "naturalistic".

Mitigation measures proposed in this SDEIR are intended to reduce the potential visual impact of the final landfill configuration to a less than significant level. These mitigation measures require a landscape architect to develop the final landscape plan for the entire site so that it appears to be a more naturally occurring feature.

Conclusion: Potentially significant impacts will be present with regard to Visual Resources; mitigation measures are proposed that will reduce those impacts to a less than significant level.

Visual Resource Mitigation Measures

- VR-1 Building materials and colors for additional structures on-site (e.g., household hazardous waste building, monitoring wells) shall be compatible with the surrounding environment. Reflective materials shall not be allowed. Colors shall be muted earth tones, i.e. browns, greens. Roof colors shall be muted, non-reflective dark earth tones, i.e., brown, green.
- VR-2 Colors for the proposed litter fencing shall be muted dark non-reflective tones, i.e., dark green or brown.
- VR-3 Heavy equipment stored on-site shall be placed behind structures whenever possible.
- VR-4 Wind-blown litter shall be controlled, potentially through the installation of a litter fence similar to the prototype shown in Figure 8.
- VR-5 Under the direction of the Public Works Director, a landscape architect shall create the final landscape plan for the entire site prior to the start of the closure construction phase so that the landfill appears to be a more naturally occurring feature that includes such attributes as tapered toes, rounded tops and undulating surfaces. The landfill shall be constructed as indicated in the engineered drawings included in the Joint Technical Document (JTD) for the landfill. The landscape architect shall design the final cover over the engineered waste mass.
- VR-6 The landfill, including the soil borrow pit in the northern expansion area, shall be revegetated during the closure construction phase with a native seed mix. The seed mix shall be planted at the optimal time of year for germination. Revegetated areas shall be

monitored to achieve a density of cover similar to the density in surrounding naturally vegetated areas.

Visual Resources Mitigation Monitoring

See mitigation monitoring plan in final EIR.

CULTURAL RESOURCES

Cultural Resource Setting. The following information on cultural resources is summarized from the Archaeological Survey of Benton Crossing Landfill and Proposed Expansion completed by Trans-Sierran Archaeological Research in 2001. The complete report is contained in Appendix A. Areas to the north and southwest of the existing landfill were surveyed (see Figure 10). Archaeological work completed for the survey included a 100 percent survey of the entire identified project area and archival research. Archival research indicated that no archaeological surveys had been conducted and no sites were recorded within the project area. Two sites have been recorded within one-half mile of the project area.

Field work for the Benton Crossing Landfill expansion was conducted on October 5, 2001. The entire project area, including existing and proposed landfill areas, was surveyed by three archaeologists walking traverses 20 to 30 meters apart along east-west compass bearings. Besides the modern trash in and around the landfill, one archaeological site, one isolate, and a "redeposited" site were discovered within the project area.

The "redeposited" site is located within the existing landfill. The Archaeological Survey report concludes that "without integrity of location, association, or context the cultural material [in the redeposited site] has lost its information and associative potential and is not significant."

The archaeological site is a sparse lithic scatter located southwest of the existing landfill boundaries. The Archaeological Survey report concludes that "the significance of this site would depend on whether it can yield adequate samples of high resolution data, either as a single-component site or through the presence of stratified subsurface deposits." The report concludes that "further archaeological work would be needed to determine its data potential and hence significance."

The isolated obsidian core was found in the proposed northern expansion area. The report notes that "as an isolated artifact, it does not meet CEQA criteria for significance."

Cultural Resource Impacts. The proposed eastern expansion area was not surveyed during the Archaeological Survey. However, it is currently disturbed by Pit Road and existing monitoring wells. Proposed uses for the eastern expansion area include the installation and maintenance of additional monitoring wells, drainage facilities, and a storm water detention basin. Due to the less intense uses proposed for this area and the existing disturbed condition of the land, it is not anticipated that significant impacts will occur to cultural resources as a result of the eastern expansion of the boundaries. However, mitigation measures for the project require the County to stop work and prepare a mitigation plan if evidence of potentially significant cultural resources is discovered during development.

SEE FIGURE 10

Benton Crossing Landfill Project Area, Archaeological Survey

Following completion of the Archaeological Survey, the proposed landfill expansion boundaries were redesigned to avoid impacts to known potentially significant cultural resources, i.e., the archaeological site to the southwest of the existing landfill. As a result, the expansion of Benton Crossing Landfill will not create potentially significant impacts to cultural resources.

Conclusion: The expansion of Benton Crossing Landfill will not create potentially significant impacts to cultural resources. Mitigation measures are proposed to further reduce impacts.

Cultural Resource Mitigation Measures

- CR-1. If evidence of potentially significant cultural resources is discovered during development, a mitigation plan shall be completed prior to further construction or earth disturbance.
- CR-2. To protect Native American burial sites if they are discovered, the provisions of section 7050.5 of the Health and Safety Code shall be followed [CEQA Section 15126.4(b)].

Cultural Resource Mitigation Monitoring

See mitigation monitoring plan in final EIR.

CIRCULATION

Setting. Benton Crossing Landfill is accessed from US 395, Benton Crossing Road, and Pit Road. US 395 is a four-lane expressway with an unpaved median approximately 100 feet wide and a turning area at its junction with Benton Crossing Road. Benton Crossing Road and Pit Road are two-lane paved County roads. Access to the landfill is maintained year-round.

The Mono County Department of Public Works collected traffic data for the landfill for the period between May, 2001, and October, 2003, in order to determine traffic patterns at the landfill. The following is an excerpt from the RDSI for Benton Crossing Landfill. Appendix L in the RDSI contains traffic volume data for Benton Crossing Landfill from 2001-2003.

The Mono County Department of Public Works performed an analysis of traffic data compiled for the period between May, 2001 and October, 2003 to determine average daily traffic and average hourly traffic volumes for weekdays, as distinguished by summer (May 1-October 31) and winter (November 1-April 30) seasons. The following data from that period provide a general understanding of daily and hourly traffic patterns at Benton Crossing Landfill:

Average Summer Weekday	43.7 vehicles/day	
Peak Average Day, Summer Weekday	46.5 vehicles/day	(Tuesday)
Peak Average Hour, Summer Weekday	5.8 vehicles	(2-3 pm)
Average Winter Weekday	24.8 vehicles/day	
Peak Average Day, Winter Weekday	26.5 vehicles/day	(Monday)
Peak Average Hour, Winter Weekday	3.9 vehicles	(1-2 pm)

The monthly variation of average daily traffic for weekdays in the summer and winter are graphically presented in Chart L-1 and Chart L-3, respectively, enclosed in Appendix L. The hourly variation of traffic for average weekdays in the summer and winter are delineated in Chart L-2 and Chart L-4, respectively. The corresponding data are presented in Table L-1 (summer) and Table L-2 (winter), also enclosed in Appendix L. Overall, the peak average weekday during the

analysis period occurred on Mondays in June, with an average daily traffic volume of 53.9 vehicles.

Although an analysis has not been performed to determine the number of commercial vehicles versus private self-haul vehicles, general observations and a review of gate receipts suggest that the majority of vehicles (and thus, waste quantities) can be attributed to garbage trucks, construction contractors, public agencies, and other commercial vehicles. It is estimated that 80 to 85 percent of all vehicles accessing the site are commercial and that 95 to 98 percent of waste tonnage is delivered by them.

Circulation Impacts. Traffic impacts were calculated for the peak traffic period observed in the data collected by the Department of Public Works. Traffic impacts were calculated utilizing the projected annual growth rates used to calculate the site life and loading rate for the landfill (see Table 1, following page). It was assumed that traffic volumes would increase in the same proportion and at the same rate as the annual total waste is calculated to increase. This assumes that peaks in disposal will still occur in summer during the construction period.

Results of calculations show that over the 20-year life of the project, there will be a potential increase of 21.3 vehicles per day on the highest peak day; overall average traffic volumes would be lower. Access roads to the landfill have the capacity to handle that increase in traffic. US 395 at its intersection with Benton Crossing Road has a wide median that provides a separate turning area for vehicles turning left onto Benton Crossing Road from US 395.

During the initial comment period for the SDEIR, one issue related to circulation was raised by Caltrans, i.e.:

- Due to the growth in the Mammoth area, Sierra Business Park, and other potential projects (e.g., airport expansion, residential development in the Benton area) with probable cumulative impacts, traffic analysis needs to occur. Analysis should determine the adequacy of the Benton Crossing Road intersection with US 395, or propose appropriate mitigation.

The Transportation Concept Report for US 395 provides the following information about the segment of US 395 from Sherwin Summit to the junction of US 395 and SR 203:

- US 395 from Sherwin Summit to the junction of US 395 and SR 203 is a four-lane conventional roadway/expressway;
- The concept facility and ultimate facility for that segment of US 395 is a four-lane expressway;
- The present LOS for that segment is A; projected LOS through 2020 is A. The final concept LOS for that segment is B;
- Annual Average Daily Traffic (AADT) volume for this segment is 5,500 vehicles, reaching a high of 9,600 vehicles during peak summer months;
- Projected AADT for 2010 is 7,110 vehicles; projected AADT for 2020 is 7,850 vehicles;
- Peak hourly volume is 970. Projected peak hourly volume for 2010 is 1,250; projected peak hourly volume for 2020 is 1,380;

- The following factors were used to forecast traffic volumes:
 - ◆ % traffic growth per year (0-10 years) = 2
 - ◆ % traffic growth per year (11-20 years) = 1
 - ◆ % trucks = 6
 - ◆ % RVs = 6
 - ◆ % buses = 1
 - ◆ Directional split = 60/40
 - ◆ Terrain = rolling.

The data from the US 395 Transportation Concept Report indicate that US 395 has sufficient capacity to accommodate the projected increase in traffic volumes over the 20-year life of the project. As shown in Table 1, traffic volumes to the landfill will increase only slightly over the 20-year life of the project. It does not appear that the overall increase in traffic resulting from the continued use of Benton Crossing Landfill will have a substantive impact on the intersection of Benton Crossing Road and US 395. US 395 at its intersection with Benton Crossing Road has a wide median that provides an existing turn pocket for vehicles turning left onto Benton Crossing Road from US 395.

TABLE 1 Traffic Volume Calculations

Year Ending	Projected Annual Growth Rate	Peak Average Weekday Average Daily Traffic Volume
2004	3.2 %	55.6
2005	3.2 %	57.4
2006	2.5 %	58.8
2007	2.5 %	60.3
2008	2.5 %	61.8
2009	2.5 %	63.4
2010	2.5 %	65.0
2011	1.0 %	65.7
2012	1.0 %	66.4
2013	1.0 %	67.1
2014	1.0 %	67.8
2015	1.0 %	68.5
2016	1.2 %	69.3
2017	1.2 %	70.1
2018	1.2 %	70.9
2019	1.2 %	71.7
2020	1.2 %	72.5
2021	1.2 %	73.4
2022	1.2 %	74.3
2023	1.2 %	75.2

Note: Projected annual growth rates are from Table E-1, Site Life/Loading Rate Calculations in Appendix E of the RDSI.

Conclusion: Potentially significant impacts will not be present with regard to Circulation; mitigation measures are not required.

Circulation Mitigation Measures

No mitigation measures are proposed.

Circulation Mitigation Monitoring

No mitigation monitoring is proposed.

NOISE

Noise Setting. Benton Crossing Landfill is located in a remote area with low ambient noise levels. There are no sensitive noise receptors (residences, schools, hospitals) located within 5 miles of the site. Although there are no sensitive noise receptors in the area, the area is located within sage-grouse breeding and nesting habitat.

The landfill is operated only during daylight hours and all equipment on-site is equipped with noise attenuation devices in compliance with Mono County Code requirements (Chapter 10.16, Noise Ordinance). The machinery used on-site is relatively small (bulldozer, scraper, loader, grader, dump trucks, water truck) and creates minimal noise. Heavy equipment use at the landfill is not constant but varies throughout the day and week depending on what activities are occurring. The use of alternative daily cover (tarps, etc.) reduces heavy equipment activity and therefore reduces noise generation due to landfill operations.

Traffic noise is minimal since traffic to the landfill averages only 46.5 vehicles per day on a peak average day during the summer and 5.8 vehicles per hour during a peak average hour in the summer (RDSI, p. 37). A propane bird cannon has been used intermittently to scare away birds. A wood shredder is also used intermittently; decibel readings for the shredder are estimated to be 80 dB at 50 feet from the machine.

Benton Crossing Landfill has operated as a disposal facility for approximately 31 years. During that period, the County has not received any adverse comments associated with noise impacts. Sound levels are negligible at the site boundaries.

The landfill is not a permanent use. Once the capacity of the landfill is reached within 20 years, all equipment will be removed from the site and noise levels will return to ambient noise levels in the project vicinity. During the life of the landfill, noise levels in the area will occur intermittently as landfill activities occur.

Noise Impacts. Short-term temporary noise impacts may occur at the landfill as a result of construction activities related to the expansion of landfill activities. The construction of additional monitoring wells, the installation of litter fencing, and the construction of a household hazardous waste building may result in intermittent short-term noise impacts. Compliance with the provisions of the Mono County Noise Regulations (Mono County Code Section 10.16) will minimize construction-related noise impacts. Those regulations limit construction activities to daylight hours and require all machinery to be equipped with noise attenuation devices.

Long-term noise impacts at the landfill will not change significantly. Machinery used on-site for landfill activities will remain the same. Traffic noise will increase only minimally over the 20-

year life of the project. Power on-site is currently provided by a gas-powered generator that the County plans to replace with solar panels in the near future.

Two issues related to noise were raised during the initial comment period for the SDEIR, i.e.:

- ◆ Will the bird cannon or other bird control methods be heard from the road?
- ◆ Will noise from the bird cannon disturb sage-grouse in the area?

The County currently has utilized a propane bird cannon to keep birds away from the landfill. The bird cannon rotates and fires randomly throughout the weekdays. The bird cannon, while it contributes to the ambient noise level in the landfill vicinity, does not create any other impacts to wildlife in the area. The effects of the bird cannon on wildlife in the area are unknown but anticipated to be minimal.

Benton Crossing Landfill is a long-term established use, with long established noise patterns and levels. The proposed operation and expansion of the landfill will not substantially alter established noise patterns or levels.

Conclusion: The operation and expansion of Benton Crossing Landfill will not result in potentially significant impacts pertaining to noise.

Noise Mitigation Measures

No mitigation measures are proposed.

Noise Mitigation Monitoring

No mitigation monitoring is proposed.

AIR QUALITY

Air Quality Setting. There are no air quality data specifically for the Long Valley area or for Benton Crossing Landfill. The landfill is within the jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD). Staff from the GBUAPCD indicate that the landfill is in compliance with State and Federal ambient air quality standards.

Implementation of an approved dust control plan on-site reduces the potential generation and offsite migration of airborne particles. Pit Road and the landfill entrance road are paved to a point approximately 100 feet west of the truck scale and internal access roads are constructed from compacted asphalt grindings. Fugitive dust generation from on-site roads is minimal and the roads are watered when necessary to prevent excessive generation of fugitive dust. Dust erosion from the soil borrow pit is also addressed through watering when necessary. The wood shredder is equipped with a dust suppression system that can be operated to control dust generated when processing wood waste.

Current air quality impacts from vehicle and equipment emissions are minimal due to the low level of traffic on-site.

The prevailing wind direction at Benton Crossing Landfill is from the southwest, based on several years of wind data collected at Mammoth-Yosemite Airport, located approximately 4.6

miles southwest of the landfill (RDSI, p. 14). Winds are calm (less than 11 miles per hour) approximately 79 percent of the 24-hour day but tend to pick up in the afternoon.

The RDSI for Benton Crossing Landfill contains a Landfill Gas Monitoring Plan (Appendix F of the RDSI). Mono County currently monitors methane concentrations in ambient air at the landfill as well as subsurface methane and landfill gas chemistry via five landfill gas monitoring wells. The monitoring has not detected any landfill gas in ambient air in structures on-site or at the property boundary but has detected constituents of landfill gas in the subsurface at three of the five existing landfill gas monitoring wells and at several other subsurface locations. As a result, the Lahontan Regional Water Quality Control Board (LRWQCB) required the County to conduct a landfill gas investigation to study whether migrating landfill gas may have impacted underlying groundwater. Based on the results of the testing, a series of landfill gas vents was installed to relieve subsurface pressure and limit landfill gas migration. A series of additional vents are proposed for the northern and northeastern edges of the waste footprint.

Landfill gas from the monitoring wells is analyzed quarterly for a suite of constituents similar to those required for groundwater monitoring. The results of the gas chemistry are submitted to the LRWQCB along with the quarterly groundwater monitoring reports. This monitoring will continue for approximately two years to determine the effectiveness of the vents and to assess the potential to correlate the data obtained from landfill gas and groundwater monitoring. The potential for continued monitoring after that two year period is unknown.

In the postclosure period, the network of existing and proposed landfill gas monitoring wells will be utilized for postclosure monitoring. Seven additional monitoring wells will be installed around the waste footprint. Gas vents along the northern and northeastern boundaries of the waste mass will remain in place throughout the postclosure maintenance period. Gas vents will also be installed in the landfill closure cap to relieve pressure that may develop in the waste mass following construction of the final cover.

Air Quality Impacts. Short-term temporary air quality impacts may occur at the landfill as a result of construction activities related to the expansion of landfill activities. The construction of additional monitoring wells, the installation of litter fencing, and the construction of a household hazardous waste building may result in intermittent short-term air quality impacts. Compliance with the provisions of the Mono County Land Clearing, Earthwork, and Drainage Ordinance (Mono County Code Chapter 13.08) will minimize construction-related air quality impacts. Those regulations require the use of erosion and pollution control devices during grading activities.

Long-term air quality impacts at the landfill will not change significantly. Emissions from equipment used at the landfill may be reduced in the future. Power is currently provided by a gas-powered generator that the County plans to replace with solar panels in the near future. Although the machinery used on-site for landfill activities will remain the same, the use of alternative cover will reduce the need to operate that machinery as much.

Long-term soil erosion impacts of the vertical expansion of the landfill are addressed in the Report of Disposal Site Information (RDSI) for Benton Crossing Landfill. Soil erosion impacts for the final grading plan are addressed in the Preliminary Closure and Postclosure Maintenance Plan (PCPMP) for Benton Crossing Landfill. Both the ongoing landfill operations and the final graded site have been designed to avoid or minimize soil erosion impacts and therefore dust-related impacts to air quality.

Pit Road and the landfill entrance road are paved to a point approximately 100 feet west of the truck scale and internal access roads are constructed from compacted asphalt grindings. Fugitive dust generation from on-site roads is minimal and the roads will be watered when necessary to prevent excessive generation of fugitive dust. Dust erosion from the soil borrow pit will also be addressed through watering when necessary.

Final cover for the landfill will include several layers of soil and a geosynthetic clay liner (GCL) overlaid with 12 inches of nominally-compacted soil and 3 to 6 inches of wood chips to protect the final cover from the effects of wind and water erosion and rain drop impact. The 12 inches of soil over the GCL is intended to accommodate root growth for naturally-occurring vegetation. Final closure plans for the landfill do not contain any plans for revegetation; naturally-occurring revegetation is expected to slowly colonize the site. Mono County has successfully used wood chips for erosion protection at several of the County's existing landfill and transfer station sites. The effectiveness of wood chips in this application will be routinely monitored and evaluated in compliance with State regulations. An alternative method of erosion control will be implemented if necessary. The potential for wind and water erosion of the final cover surface is considered negligible due to use of the wood chip layer (PCPMP, p. 5).

The expansion areas to the north will be utilized as a soil borrow pit. The majority of the soil to be excavated from the soil borrow pit (roughly 240,000 cubic yards) will be excavated at the very end of the landfill life, when soil will be needed for final cover construction on the landfill. The final design for the soil borrow area is a pit sloping to the east. There are currently some old piles of concrete, asphalt, boulders and tree stumps (classified as "inert debris") sitting on the ground north of Owens River Road. As the County excavates the new borrow pit, the western-most portion of the site will be backfilled with the inert debris. That material will then be covered with soil only, consistent with the regulatory provisions for inert Construction & Demolition (C&D) landfills. The remainder of the borrow pit (that portion without waste fill) will not have any cover placed over it. There are no plans to revegetate this area; naturally-occurring vegetation is expected to slowly colonize the site. Though the pit will be lower than the surrounding landscape, there will still be some potential for dust generation and soil erosion.

Traffic to the landfill is not anticipated to increase significantly over the 20-year life of the landfill (see section on Circulation); potential air quality impacts from vehicle emissions are not anticipated to be significant.

One issue related to air quality was raised during the initial comment period for the SDEIR, i.e.:

- Will the additional waste on-site create air quality impacts; i.e., will the smell increase proportionally?

Odors from the waste are not noticeable except at the working face. The working face will not increase significantly over the 20-year life of the landfill; the amount of exposed waste, and any associated smells, will remain relatively the same. The working face is only exposed during the day; at night it is covered and any odors are further lessened. The dried sewage sludge dumped at the sludge landfarm on the landfill site does have some associated odors, particularly when a fresh load is dumped. Those odors dissipate over time to the point where they are not noticeable except in the sludge landfarm area of the landfill. Benton Crossing Landfill is located in a remote area; there are no land uses in the surrounding area that would be incompatible with the minimal odors generated by the landfill.

As discussed in the previous section, landfill gas monitoring and landfill gas vents are included in the PCPMP for Benton Crossing Landfill. The Landfill Gas Monitoring Program will ensure that landfill gas does not cause a significant impact to air quality.

Conclusion: The operation and expansion of Benton Crossing Landfill will not result in potentially significant impacts pertaining to air quality.

Air Quality Mitigation Measures

No mitigation measures are proposed.

Air Quality Mitigation Monitoring

No mitigation monitoring is proposed.

WATER RESOURCES

Water Resources Setting. Benton Crossing Landfill is located in Long Valley on a low ridge between alkali meadows to the north, Big Alkali Lake to the north, and the Owens River to the northeast. The landfill is approximately 1.3 miles southwest of the Owens River from Benton Crossing, and approximately 500 feet north of Big Alkali Lake. Crowley Lake is approximately 2 miles southeast of the landfill; Hot Creek is approximately 4 miles southwest of the landfill. There are no surface waters on-site at the landfill or in the immediate vicinity. Groundwater monitoring data indicate static groundwater levels are between 20 and 30 feet below ground surface (bgs).

Bottled water is provided at the scalehouse for drinking. The on-site restroom is supplied with wash water from an underground storage tank equipped with a pump and pressure tank. Restroom water is trucked on-site from an off-site source. Restroom facilities and drinking water are available to site personnel but not to the public unless absolutely necessary. The operation and expansion of the landfill will not create the need for additional personnel; therefore, there will be no need for expanded water supplies. Supplemental analysis is not required.

Water is also used to control fugitive dust from roadways. Fugitive dust generation from the main access road and internal site roads is minimal since those roads are paved or constructed from compacted asphalt grindings. The operation and expansion of the landfill will not create the need for additional water for dust control.

Groundwater monitoring wells are installed upgradient and downgradient from the landfill. The upgradient wells provide samples for background water quality; the downgradient wells provide samples after the groundwater has passed beneath the landfill site. Both the groundwater depth and gradient vary depending on the season and regional precipitation. Ongoing groundwater monitoring occurs to determine whether landfill operations have impacted the underlying groundwater. Samples are analyzed for organic and inorganic compounds with Waste Discharge Requirements established by the Lahontan Regional Water Quality Control Board.

Low concentrations (on the order of one to two parts per billion) of three volatile organic compounds (VOCs) have been detected at Benton Crossing Landfill. As a result, an evaluation monitoring program has been implemented at the site to determine whether constituent concentrations are increasing, decreasing, or remaining stable over time. So far, VOC concentrations have remained consistently low and appear to have stabilized well below their

respective Maximum Contaminant Levels (MCLs). Additional groundwater monitoring wells will be installed in the proposed landfill expansion areas.

To promote drainage of surface water, site surfaces are graded to drain away from disposal areas. The landfill design includes perimeter and internal run-off control facilities designed to collect and control precipitation and storm flows resulting from the 100-year, 24-hour storm event.

Water Resource Impacts – Storm Water. Due to the topographic location of the landfill on top of a rise, the danger of run-on flows impacting the landfill and resulting in a washout or exposure of waste is non-existent. Run-off from within the landfill boundary and the active disposal areas is generally directed into one of four detention basins around the landfill perimeter. These basins are designed to detain design storm flows, allowing sediments to settle out, then discharge once the basin capacity has been reached. Construction of the storm water control system will occur over the operational life of the landfill. As waste placement progresses as delineated on Drawing 5 (see Appendix B), internal drainage channels will divert run-off into previously-constructed perimeter control channels and detention basins. Part of the proposed expansion areas will be utilized to construct additional storm water detention basins.

The final configuration of the landfill is intended to minimize the potential for erosion of the final cover due to surface run-off. The sitewide drainage control system is discussed in detail in the Preliminary Closure and Postclosure Maintenance Plan for the landfill; the final grading for the site is shown in Drawing 4 in Appendix B. The overall design includes a ridge and swale system on the top surface, culverts on the sideslopes, and open diversion channels along the perimeter of the waste footprint. The perimeter channels flow into one of four detention basins located between the waste footprint and the property boundary. The combination of surface swales, headwall diversion berms, and overside culvert drains minimizes the potential for erosion of the final cover due to surface run-off.

In addition to drainage controls related to the waste fill, a four-foot high earthen berm and discharge structure will be constructed at the eastern-most (down-stream) side of the borrow pit to collect and slow surface flows generated within that area so that transported sediments can settle out before the flows are discharged off-site.

The ongoing operations of the landfill and its final configuration have been designed to slow storm waters, to channel them to detention basins in order to retain sediments on-site and to minimize offsite storm water impacts. All components of the drainage system will be inspected as part of routine landfill inspections during its operating life, and at least quarterly during the postclosure period to ensure the effectiveness of the system. The drainage control system will also be inspected after each heavy precipitation event to verify the integrity of the run-off control system; any components requiring repair will be restored to design grades according to the approved plan. The operation and expansion of Benton Crossing Landfill will not result in significant storm water flow impacts.

Leachate. Benton Crossing Landfill does not include a base liner or a leachate collection and recovery system. The generation of contact water is minimized through the application of daily cover and the diligent execution of grading practices that direct storm flows away from the active disposal area.

The Lahontan Regional Water Quality Control Board (LRWQCB) adopted Waste Discharge Requirements (WDRs) for Benton Crossing Landfill in 1987. Those requirements, along with subsequent amendments, required implementation of a groundwater monitoring program. Five

wells are now installed at the landfill; two more will be installed in the summer of 2005 to complete the monitoring network. In 1997, an Evaluation Monitoring Program (EMP) was developed for the landfill in response to low, yet quantifiable, concentrations of VOCs detected in compliance well MW-2. Annual reports to the present have cited low VOC concentrations and hydrologic stability and have recommended continuing the EMP. It is anticipated that this trend will continue unless significant changes in chemistry are observed during the operating life. The same groundwater monitoring program will continue throughout the postclosure monitoring period.

Groundwater monitoring has not revealed any significant impacts to groundwater from the landfill. The operation and expansion of Benton Crossing Landfill will not result in significant impacts to groundwater.

Conclusion: The operation and expansion of Benton Crossing Landfill will not result in significant impacts to water resources. Mitigation measures are not required.

Water Resources Mitigation Measures

No mitigation measures are proposed.

Water Resources Mitigation Monitoring

No mitigation monitoring is proposed.

HAZARDOUS MATERIALS

Hazardous Materials Setting. Benton Crossing Landfill maintains a 2,000 gallon above-ground storage tank to store diesel fuel for equipment operation and a 1,000 gallon above-ground storage tank to store used motor oil for recycling. The above-ground storage tanks are provided with secondary containment systems and are located within and adjacent to the equipment storage yard near the landfill entrance. Gasoline, motor oil, hydraulic fluids, and other lubricants used in the daily operation of the landfill are stored in the work shop and tool shed located near the landfill entrance. These materials are stored in their original containers on secondary containment platforms.

Household hazardous wastes received for disposal at the landfill are temporarily stored in the two hazardous waste storage buildings located near the landfill entrance until they are removed from the site by licensed hazardous waste haulers. Wastes are separated by type and stored in designated storage areas within the buildings. The buildings are constructed from all-welded steel and fitted with explosion vents. Materials are stored in their original containers or in storage tubs, or both, and placed on secondary containment shelves. Steel grates provide a floor surface that sits above a secondary containment sump in each building.

Hazardous Materials Impacts. The proposed expansion of Benton Crossing Landfill includes the potential future installation of a household hazardous waste building being considered to supplement existing storage buildings and to provide a covered containment area for consolidation of household hazardous wastes and storage of bulk containers. The building would be constructed with the appropriate secondary containment facilities. Other than the proposed household hazardous waste storage building, the proposed operation and expansion of Benton Crossing Landfill will not increase the use or storage of hazardous materials on-site.

The RDSI for Benton Crossing Landfill contains an Emergency Response Plan (Appendix H in the RDSI) that addresses potential emergencies and response activities. The RDSI also contains an Injury and Illness Prevention Program (Appendix I in the RDSI) that addresses safety issues, procedures and training programs for employees involved in the operation of the landfill. Both documents address hazardous materials dumping, storage, and spill situations and include procedures to minimize impacts associated with hazardous materials. Landfill employees are routinely trained in the details of these plans, at least annually.

Conclusion: The operation and expansion of Benton Crossing Landfill will not result in significant impacts related to hazardous materials.

Hazardous Materials Mitigation Measures

No mitigation measures are proposed.

Hazardous Materials Mitigation Monitoring

No mitigation monitoring is proposed.

IV. PROJECT ALTERNATIVES

INTRODUCTION

The CEQA Guidelines require the discussion of alternatives to a proposed project. The Guidelines specifically require the analysis of a No Project Alternative (i.e., the project does not occur) and one or more development alternatives. The development alternatives must be "reasonable" ones which "... could feasibly attain most of the basic objectives of the project... An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (CEQA Guidelines Section 15126.6).

The alternatives analysis focuses on alternatives that are capable of avoiding or substantially lessening significant effects of the project, even if the project objectives are impeded to some degree or are more costly. The objective of the project is to expand the property boundaries and the Public Facilities (PF) land use designation at Benton Crossing Landfill to allow for the installation and maintenance of additional environmental monitoring devices and drainage facilities, to provide sufficient soil borrow resources to meet daily, intermediate, and final cover needs for the remainder of the facility's life and to permit a variety of landfill activities on-site to meet the needs of the waste disposal requirements of the service area through the year 2023. Meeting the project objective will require approval of General Plan Amendment 04-02 and Use Permit 37-04-08.

There are no potentially significant environmental effects of the project that are unavoidable and cannot be reduced to less than significant levels.

There are two potentially significant environmental effects of the project that, with mitigation, can be reduced to less than significant levels:

1. Geology and Soils (soil erosion impacts); and
2. Visual Resources.

There is one potentially less than significant environmental impact; mitigation measures proposed in this SDEIR would reduce that impact to the lowest feasible levels:

1. Vegetation and Wildlife Impacts (impacts to sage grouse).

All other impact areas are not potentially significant.

A. NO PROJECT ALTERNATIVE

In this alternative, no expansion would occur to the landfill boundaries; it would remain in its present state. Soil for final cover would be obtained from an alternate source. Landfill operations would continue as they are now. This alternative would still require the postclosure period at Benton Crossing Landfill and the maintenance of monitoring devices. It would also still require the installation of additional groundwater monitoring wells and gas monitoring wells and vents at Benton Crossing Landfill.

The No Project Alternative would have the following effects in comparison to the proposed project:

- ◆ Soil erosion impacts would be reduced since the northern expansion area would not be used as a soil borrow pit.
- ◆ Potential impacts to wildlife would be reduced slightly since there would be no further disturbance in the northern soil borrow area.
- ◆ Visual impacts would be reduced slightly since the ultimate landfill height would be limited and there would be no further disturbance in the northern soil borrow area.
- ◆ There would be unknown impacts related to obtaining soil for final cover from another source.
- ◆ Truck traffic would increase since soil would be obtained from an off-site source.

This alternative would only partially meet the project objective of meeting the waste disposal requirements of the service area through the year 2023 since the current disposal capacity will run out within 10 years. The primary advantage to this alternative would be reduced impacts on wildlife and soils at the project site. There would be unknown environmental effects from obtaining soil for final cover from an off-site source. Although it reduces impacts in several impact areas, this alternative could increase impacts in other areas.

B. FUTURE ALTERNATIVE SITE

In this alternative, the existing landfill at Benton Crossing would remain and would operate under its current entitlements, with its current disposal capacity being reached in 10 years. An alternative site would be found within Mono County for future disposal of waste. Alternative sites for a landfill in Mono County need to be centrally located, easily accessible, and outside of environmentally-sensitive areas and are therefore difficult to locate. In addition, private land is limited outside of community areas in Mono County. Moving the landfill could require a land exchange with a public agency. The US Forest Service pit adjacent to the Mammoth Lakes Airport is not a viable option because there are restrictions on establishing new municipal solid waste facilities so close to an airport and because the environmental effects of locating a landfill so close to Hot Creek could be significant.

Siting, permitting, and constructing a new landfill would likely take 15 years or more in Mono County due to the limitations on available land. Due to the limitations on siting a new landfill in Mono County, the existing Pumice Valley Landfill could be utilized as the future alternative site.

This alternative would still require the postclosure period at Benton Crossing Landfill and the maintenance of monitoring devices. It would also still require the installation of additional groundwater monitoring wells and gas monitoring wells and vents at Benton Crossing Landfill. Costs of this alternative are unknown.

This alternative would have the following effects in comparison to the proposed project:

- ◆ Visual resource impacts would be reduced since the final profile of Benton Crossing Landfill would be lower and the overall waste mass would be smaller; the site would still appear visually altered from surrounding undeveloped lands but the impact would be less severe. However, visual resource impacts could occur elsewhere in the county. If Pumice Valley Landfill was chosen as the alternative site, visual resource impacts could

occur in proximity to the Mono Basin National Forest Scenic Area, in a much more visually open area than the location of Benton Crossing Landfill.

- ◆ Soil erosion impacts at Benton Crossing Landfill would be reduced since substantially less soil would be required for final cover. However, unknown soil erosion impacts could occur elsewhere in the county, depending on where the soil was obtained for cover at the chosen landfill site.
- ◆ Impacts to wildlife would be reduced in the vicinity of Benton Crossing Landfill since there would be no working landfill to attract birds, there would be no need for a net litter fence, there would be far less disturbance in the northern soil borrow area, and there would be no heavy equipment usage to potentially affect wildlife. However, unknown impacts to wildlife could occur elsewhere in the county, depending on the location of the landfill site.
- ◆ The environmental impacts of locating the landfill elsewhere are unknown.

This alternative would meet the project objective of meeting the waste disposal requirements of the service area through the year 2023, assuming that the alternative site was Pumice Valley Landfill and assuming the proposed expansion of Pumice Valley Landfill is approved. If another site were chosen, this alternative might only partially meet the project objective since the current disposal capacity at Benton Crossing Landfill will run out within 10 years and siting, permitting, and constructing a new landfill will likely take 15 years or more in Mono County due to the limitations on available land. The primary advantage to this alternative would be reduced impacts on wildlife and visual resources at Benton Crossing Landfill. There would be unknown environmental effects from locating the landfill elsewhere. Although it reduces impacts in several impact areas, this alternative could increase impacts in other areas, potentially significantly.

C. SHIPPING WASTE OUTSIDE OF MONO COUNTY

In this alternative, all waste currently accepted at Benton Crossing Landfill would be shipped out of the county, probably to the large municipal solid waste site currently in operation outside of Sparks, Nevada. This alternative would require the modification of transfer facilities for the Town of Mammoth Lakes since Mammoth Lakes is the source of approximately 75 percent of the waste received at Benton Crossing Landfill and the current transfer facilities do not meet the needs for a long-haul transfer facility. Various recycling and hazardous waste items currently stored on-site at Benton Crossing Landfill would need to be stored at the transfer site until they were processed and shipped off-site. This alternative would still require the postclosure period at Benton Crossing Landfill and the maintenance of monitoring devices. It would also still require the installation of additional groundwater monitoring wells and gas monitoring wells and vents at Benton Crossing Landfill. Costs of this alternative are unknown.

This alternative would have the following effects in comparison to the proposed project:

- ◆ Visual resource impacts would be reduced since the final profile of the landfill would be lower and the overall waste mass would be smaller; the site would still appear visually altered from surrounding undeveloped lands but the impact would be less severe.
- ◆ Soil erosion impacts would be reduced since substantially less soil would be required for final cover.
- ◆ Impacts to wildlife would be reduced since there would be no working landfill to attract birds, there would be no need for a net litter fence, there would be far less disturbance in

the northern soil borrow area, and there would be no heavy equipment usage to potentially affect wildlife.

- ◆ There could be increased truck traffic on the county's highways since all waste would be shipped out of the county. However, there could also be less traffic since more trips by small disposal trucks could be replaced by fewer trips by larger long-haul tractor trailers.
- ◆ The environmental impacts of developing an expanded transfer station to serve Mammoth Lakes are unknown.

This alternative would meet the project objective of meeting the waste disposal requirements of the service area through the year 2023 since once a long-haul transfer station is constructed, it would meet the waste management needs of the area for decades to come. However, it is unknown whether a suitable location for a long-haul transfer station could be found, acquired, permitted, and constructed within the 10-year timeframe of existing disposal capacity at Benton Crossing.] The primary advantage to this alternative would be reduced impacts on wildlife and visual resources. There would be unknown environment effects from developing a long-haul transfer station to serve Mammoth Lakes. Although it reduces impacts in several impact areas, this alternative could increase impacts in other areas.

V. IMPACT OVERVIEW

GROWTH INDUCING EFFECTS

The operation and expansion of Benton Crossing Landfill will not result in any growth inducing effects. The project will not create additional employment opportunities. Operation of the landfill will utilize existing staff; expansion of the landfill will utilize contractors. Without additional employment opportunities there will be no growth inducing effects on the population or associated impacts to housing.

CUMULATIVE IMPACTS

Cumulative impact analysis in an EIR must consider "reasonably foreseeable" projects in the general vicinity. Cumulative analysis requires the evaluation of "cumulatively considerable" impacts, defined by CEQA as "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects ..." [CEQA Section 15065(c)].

There are no additional reasonably foreseeable projects in the general vicinity that were not considered in the prior General Plan EIRs; supplemental analysis is not required.

SIGNIFICANT, UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS AND CHANGES IF THE PROJECT IS IMPLEMENTED

The operation and expansion of Benton Crossing Landfill would result in no potentially significant environmental effects of the project that are unavoidable and cannot be reduced to less than significant levels.

The operation and expansion of Benton Crossing Landfill would result in two potentially significant environmental effects of the project that, with mitigation, could be reduced to less than significant levels:

1. Geology and Soils (soil erosion impacts); and
2. Visual Resources.

There is one potentially less than significant environmental impact resulting from the operation and expansion of Benton Crossing Landfill; mitigation measures proposed in this SDEIR would reduce that impact to the lowest feasible levels:

1. Vegetation and Wildlife Impacts (impacts to sage grouse)

All other impact areas are not potentially significant.

VI. GLOSSARY

ADC	Alternative daily cover.
BGS	Below ground surface.
BLM	Bureau of Land Management.
C & D	Construction and Demolition waste, e.g., concrete, lumber.

Title 14, CCR, Division 7, Chapter 3, Definitions section.

17225.15. "Construction and Demolition Wastes" include the waste building materials, packaging and rubble resulting from construction, remodeling, repair and demolition operations on pavements, houses, commercial buildings and other structures.

Title 14, CCR, Division 7, Chapter 3, Article 5.9.

17381(e). "Construction and Demolition Debris", or "C&D Debris" is solid waste that is a portion of the waste stream defined as "construction and demolition wastes," as defined in Section 17225.15 of Article 4 of this Chapter, and means source separated or separated for reuse solid waste and recyclable materials, including commingled and separated materials, that result from construction work, that are not hazardous, as defined in CCR, Title 22, section 66261.3 et seq., and that contain no more than 1% putrescible wastes by volume calculated on a monthly basis and the putrescible wastes do not constitute a nuisance, as determined by the EA.

(1) C&D debris includes only the following items which meet the above criteria:

- (A) components of the building or structure that is the subject of the construction work including, but not limited to, lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and floor coverings, window coverings, plastic pipe, concrete, fully cured asphalt, heating, ventilating, and air conditioning systems and their components, lighting fixtures, appliances, equipment, furnishings, and fixtures;
- (B) tools and building materials consumed or partially consumed in the course of the construction work including material generated at construction trailers, such as blueprints, plans, and other similar wastes;
- (C) cardboard and other packaging materials derived from materials installed in or applied to the building or structure or from tools and equipment used in the course of the construction work; and
- (D) plant materials resulting from construction work when commingled with dirt, rock, inert debris or C&D debris.

CIWMB	California Integrated Waste Management Board.
CNDDDB	California Natural Diversity Data Base

DFG	California Department of Fish and Game.
EA	Enforcement Agency; for this project, the Mono County Health Department.
HHW	Household Hazardous Waste.
Inert Debris	<p>Title 14, CCR, Division 7, Chapter 3, Article 5.9.</p> <p>17381(k). "Inert Debris" means solid waste and recyclable materials that are source separated or separated for reuse, do not contain hazardous waste (as defined in CCR, Title 22, section 66261.3 et seq.) or soluble pollutants at concentrations in excess of applicable water quality objectives and do not contain significant quantities of decomposable waste. Inert debris may not contain more than 1% putrescible wastes by volume calculated on a monthly basis and the putrescible wastes shall not constitute a nuisance, as determined by the EA. Gravel, rock, soil, sand and similar materials, whether processed or not, that have never been used in connection with any structure, development, or other human purpose are not inert debris and may be commingled with inert debris.</p> <p>(1) "Type A Inert debris" includes but is not limited to concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants. The board, upon consultation with the State Water Resources Control Board, will determine on a case by case basis whether materials not listed in this subdivision qualify as Type A inert debris.</p> <p>(2) "Type B inert debris" is solid waste that is specifically determined to be inert by the applicable RWQCB, such as treated industrial wastes and de-watered bentonite-based drilling mud, but excluding Type A inert debris.</p>
JTD	Joint Technical Document for Benton Crossing Landfill comprised of the Preliminary Closure and Postclosure Maintenance Plan (PCPMP) and the Report of Disposal Site Information (RDSI).
LADWP	Los Angeles Department of Water and Power.
LRWQCB	Lahontan Regional Water Quality Control Board.
Monofill	A disposal cell specifically set aside for burial of one type of waste. These are commonly used for waste tires, asbestos waste, dead animals, and similar types of waste that the operator or regulator wants to keep segregated from the public or main working face. They are often a small trench or hole excavated in native soil at the landfill perimeter, but can also be an area set aside on top of the former disposal area.
MSW	Municipal Solid Waste.
PCPMP	Preliminary Closure and Postclosure Maintenance Plan, a document required by the State for each landfill.

RDSI	Report of Disposal Site Information, a document required by the State for each landfill.
TPD	Tons per day.
VOCs	Volatile organic compounds.

VII. REFERENCES

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IX. APPENDICES

APPENDIX A

TECHNICAL STUDIES

1. **Botanical Survey of Proposed Benton Crossing Landfill and Pumice Valley Landfill Expansion Areas, Mono County, California.** Mark Bagley. 2002.
2. **Wildlife Surveys Mono County Landfill Expansion Sites.** JBR Environmental Consultants, Inc. 2001.
3. **Archaeological Survey of Benton Crossing Landfill and Proposed Expansion.** Trans-Sierran Archaeological Research. Letter dated November 18, 2001.

APPENDIX B

FIGURES AND REDUCED DRAWING SET

1. Figure 2.1, Land Use/Zoning Map
2. Drawing 1, Cover Sheet and Location Map
3. Drawing 2, Vicinity Map and Existing Topography
4. Drawing 3, Existing Facilities Plan
5. Drawing 4, Final Grading Plan
6. Drawing 5, Fill Sequencing and Excavation Plan
7. Drawing 6, Cross-Sections, Sheet 1 of 2
8. Drawing 7, Cross-Sections, Sheet 2 of 2
9. Drawing 8, Hydrologic Sub-Area Layout
10. Drawing 9, Details, Sheet 1 of 2
11. Drawing 10, Details, Sheet 2 of 2

APPENDIX C

NOTICE OF PREPARATION AND COMMENTS

1. Notice of Preparation.
2. Comments in Response to Notice of Preparation.
3. Comments from 9/8/04 scoping meeting at Crowley Lake Community Center.

Notice of Preparation and Environmental Scoping Meeting
Benton Crossing Landfill – Supplemental Environmental Impact Report
Long Valley, Mono County, California

Date: August 16, 2004

To: State Clearinghouse, Responsible Agencies, Neighboring Landowners, Interested Parties

From: Mono County Community Development Department / Planning Division

Re: Notice of Preparation of a Supplemental Environmental Impact Report and
Notice of an Environmental Scoping Meeting

As the lead agency, Mono County will prepare a Supplemental Environmental Impact Report (EIR) for the project described below. Comments about the extent and content of the Supplemental EIR are being sought. Responsible agency comments should focus on environmental information related to statutory responsibilities in connection with the project. Agencies may use the Supplemental EIR prepared by Mono County when considering subsequent permit approvals for the project. Agencies and the public are invited to attend the following:

Environmental Scoping Meeting
Wednesday, September 8, 2004, 2:00 p.m.
Crowley Lake Community Center

This scoping meeting is one of the first steps in the environmental review process for the project. The scoping meeting is intended to help determine the scope and content of the Supplemental EIR; comments about the pros and cons of the project will be considered at future public hearings. The draft Supplemental EIR is expected to take approximately two months to prepare, and will likely be available for public review in early November, 2004. Formal public hearings regarding the Supplemental EIR will likely be held in March or April 2005, with the actual date, time, and place announced prior to then.

The project location and description are found below. A copy of the proposed permit documents will be available for viewing on the County's web site at www.monocounty.ca.gov. Copies of this notice, the General Plan Amendment Application, and proposed permit documents are also on display at the Crowley Lake and Bridgeport libraries, as well as at the offices of the Mono County Department of Public Works (74 North School Street, Bridgeport, CA 93517, phone: 760-932-5440) and at the Bridgeport and Mammoth Lakes offices of the Community Development Department (see letterhead). Copies of the above documents may be purchased (at a cost of \$0.05 per page) at the Department of Public Works.

Due to the time limits mandated by State law, responses about the content of the Supplemental EIR must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. Responses may also be submitted at the scoping meeting.

Please mail comments to the **Mono County Planning Division, Attention: Benton Crossing Landfill EIR, P.O. Box 347, Mammoth Lakes, California 93546**. E-mail responses may be sent to commdev@mono.ca.gov. Agencies are asked to provide the contact person's name and telephone number.

Project Application: General Plan Amendment # 04-02

Applicant: Mono County Department of Public Works
74 North School Street / P.O. Box 457
Bridgeport, California 93517

Project Location: The Benton Crossing Landfill is located at 899 Pit Road, approximately 0.8 miles north of Benton Crossing Road, 4.7 miles east of its intersection with US 395 in the Long Valley region of southern Mono County. The site occupies portions of Section 16, Township 3 South, Range 29 East, MDB&M. A vicinity map is presented on the attached reduced Drawing 1.

Project Description: The Benton Crossing Landfill receives an annual average of 108 tons per day of non-hazardous municipal solid waste during a 358-day operating schedule, with a peak daily loading rate of up to 400 tons per day. The purpose of the project is the expansion of property boundaries and the corresponding General Plan Amendment to incorporate the new property boundaries. In addition, the project involves an increase in site disposal capacity within the existing waste footprint, which will result in an increase in the estimated site life. The Supplemental EIR will also provide project environmental information for other state and local agencies when evaluating their issuance of a revised solid waste facilities permit and revised waste discharge requirements, which are being considered to bring them consistent with current operations and state regulations governing solid waste landfill operation. The project will also address operational practices and the proposed installation of environmental controls and other facilities. The enclosed reduced copies of Drawing 3 and Drawing 4 from the permit plan set present existing and proposed site conditions, respectively.

The Benton Crossing Landfill currently resides on approximately 95.05 acres owned by the Los Angeles Department of Water and Power and leased to Mono County for purposes of landfill operation and cover soil excavation. Mono County proposes to expand the property by approximately 50.01 acres in total, consisting of 15.00 acres to the east and 35.01 acres to the north of current boundaries. Property expansion to the east will incorporate existing monitoring wells and allow for the installation and maintenance of additional environmental monitoring devices and a storm water detention basin. The north expansion area will serve a similar purpose, but will also provide sufficient soil borrow resources to meet daily, intermediate, and final cover soil needs for the remainder of the facility's life. Property expansion will be on land owned by the Los Angeles Department of Water and Power, which is currently designated "OS – Open Space." The proposed project will extend the General Plan designation of "PF – Public Facilities" from the existing landfill property to correspond to the expanded property. There are no structures or residences within one mile of the facility.

The existing waste footprint encompasses an estimated 64.5 acres of unlined disposal area. The proposed design for the final landfill configuration consists of vertical fill over the existing waste footprint and does not propose lateral expansion beyond its limits. The approved 1995 closure plan presents an average perimeter slope height of 16 feet and a peak fill height of 28 feet; the proposed design presents an average height of 22 feet and a peak height of 41 feet above surrounding grades. The approved capacity for the Benton Crossing Landfill is currently 1,105,217 cubic yards; the proposed design results in an estimated site capacity of 1,814,400 cubic yards.

Construction activities that will be evaluated by the Supplemental EIR include the installation of additional landfill gas vents, landfill gas monitoring wells, and groundwater monitoring wells, all of which are proposed to supplement the

existing environmental monitoring network. In addition, the document will address the potential future installation of permanent litter fencing along the eastern boundary of the fill area to prevent the off-site migration of wind-blown litter. This control mechanism may consist of chain-link fencing or tall (up to 40 feet in height) net-type litter fencing. Another potential facility to be evaluated is a household hazardous waste building being considered to supplement existing storage buildings and to provide a covered containment area for consolidation of household hazardous wastes and storage of bulk containers.

Operational activities that will be evaluated include: 1) a sludge landfarm operation, where dried sewage sludge from the local waste water treatment plant is mixed with native soil for use as an alternative daily cover; 2) the use of other state-approved alternative daily cover methods such as synthetic tarps, wood chips, and spray-applied cementitious products; 3) the implementation of an alternative frequency of cover placed in the construction and demolition waste management unit; and, 4) periodic use of a propane cannon for bird control.

The landfill is not served by any utility companies – on-site utilities include: 1) drinking water furnished by five-gallon bottles and dispenser from a local vendor; 2) non-potable wash water provided by a water holding tank with pump and pressure tank; 3) a septic holding tank that is pumped monthly; and, 4) a power generator, which is planned to be replaced by an alternative source such as solar panels and battery packs. Fire protection services are provided by the California Department of Forestry, Owens Valley Unit. Primary vehicular access to the site is via US 395 to Benton Crossing Road, then Pit Road.

Potential Impacts: Environmental issues expected to be analyzed in the environmental document include: geologic, hydrogeologic, cultural, wildlife, botanical, circulation, noise, visual, water resources, public service impacts, and others.

**Insert comments received in response from Caltrans,
DTSC, and DFG**

ISSUES OF CONCERN RAISED AT SCOPING MEETING FOR BENTON CROSSING LANDFILL EXPANSION

09/08/04 Crowley Lake Community Center

Public Services

- Emergency water services/availability of water in case of fire.
- Proposed litter net could attract raptors and gulls to landfill site (poles provide areas to perch).
- Proposed detention basin for 100-year storm might provide standing water for mosquito breeding (although highly unlikely that water will be detained long enough for mosquitoes to lay eggs).

Biological Resources

- Existing perennial garden may be in proposed expansion area (highly unlikely, but worth double checking).
- Potential impacts on special status plants.
- Potential invasion of noxious weeds resulting from proposed clearing.
- Impact on sage-grouse populations (gulls are known sage-grouse predators; sage-grouse are very susceptible to West Nile Virus; timing of major clearing/cutting could negatively impact nesting and breeding patterns; leks are present within a few miles).
- Impacts on deer migration corridors (fences must provide deer access).
- Increased use of area by scavengers (foxes, coyotes, etc.)
- All potential methods of bird control should be investigated before one is chosen (bird canon, tape of distressed bird calls, filament wire above landfill, etc.).

Visual Resources

- Existing diagrams and plans do not do enough to provide a clear visual image of what the completed landfill will look like (need photo simulations, accurate sections, “key viewpoints”).
- Erosion control methods (ensure that proposed method is the best alternative).
- Are proposed contours and shaping of landfill “naturalistic” enough or are they too square? Will landfill look out of place against surrounding landscape?

Noise

- Will bird canon or other bird control method be heard from the road?
- Will noise from the bird canon disturb the sage-grouse?

Air Quality

- Impacts of additional on-site waste (will the smell increase proportionally?)

Energy

- Use of solar power is encouraged (plan is to change existing generator to solar powered system).

Alternatives

- No project.
- Location alternative analysis.
- Alternative site from which to obtain clean fill material.
- Don't use clean fill from proposed site; instead process construction and demolition material and use wood chips.
- Truck all waste out-of-state.

Other

- Increased county population growth could lead to a greater than predicted impact on the landfill. How can this be accounted for?
- Is proposed Hazmat storage adequate? Should capacity be increased?